DOCUMENT RESUME

ED 310 836 JC 890 446

TITLE	The Statewide Evaluation of Matriculation: First Year Report on Program Implementation, 1987-88.
INSTITUTION	Evaluation and Training Inst., Los Angeles, Calif.
SPONS AGENCY	California Community Colleges, Sacramento. Office of the Chancellor.
PUB DATE	31 Aug 89
NOTE	141p.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Academic Advising; College Admission; Community Colleges; Cost Effectiveness; Course Selection (Students); Educational Diagnosis; Followup Studies; Institutional Research; Program Implementation; Questionnaires; *School Holding Power; *School Orientation; State Programs; State Surveys; Student Attitudes; Student Evaluation; *Student Personnel Services; Teacher Attitudes; Two Year Colleges
IDENTIFIERS	*California; Student Flow

ABSTRACT

In 1987, the Chancellor's Office of the California Community Colleges initiated a three and one-half year evaluation of the statewide matriculation program, a legislatively mandated effort to assist community college students in identifying and achieving their educational goals. This report evaluates the implementation of matriculation during the first year, 1987-88. The report discusses matriculation services prior to 1987-88 and after the first year of program implementation, focusing on orientation; assessment; advisement, counseling, and course selection; student follow-up; institutional research and evaluation; coordination and training; admissions; barriers to program implementation; and the impact of matriculation on the colleges. In addition, the report presents results from student and faculty surveys, discusses the role and effectiveness of the Chancellor's Office, offers a cost analysis, and presents recommendations. Major findings of the study include the following: (1) 60% of the colleges expanded their orientation programs, and 60% implemented new types of orientation services; (2) over 70% of the colleges expanded existing assessment programs, and almost 75% expanded their counseling programs; (3) the implementation of matriculation was impeded by cutbacks and delays in funding, poor communication between the Chancellor's Office and the field, limited data processing capabilities, and defunding of a statewide management information system; (4) despite the fact that most students perceived benefits from the matriculation services, 40% indicated that they were still confused about which courses they should be taking; and (5) faculty participation in the program was limited. Recommendations call for full funding of the matriculation program by the legislature, the development of a 5-year evaluation timeline, greater faculty involvement, and a greater emphasis on student assistance, particularly with respect to course selection. Survey instruments are appended. (JMC)

ED310836

THE STATEWIDE EVALUATION OF MATRICULATION

FIRST YEAR REPORT ON PROGRAM IMPLEMENTATION, 1987-88

SUBMITTED BY THE EVALUATION & TRAINING INSTITUTE

AUGUST 31, 1989

JC 890 446

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. Smith

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

TABLE OF CONTENTS

		Page
	EXECUTIVE SUMMARY	i
I.	**INTRODUCTION**	1
II.	**MATRICULATION SERVICES PRIOR TO 1987-88 AND THE FIRST YEAR OF PROGRAM IMPLEMENTATION**	6
	Orientation	7
	Assessment	13
	Advisement, Counseling and Course Selection	19
	Student Follow-up	27
	Institutional Research and Evaluation	33
	Coordination and Training	40
	Admissions	45
	Barriers to Program Implementation	50
	Impacts of Matriculation Upon the Colleges	54
III.	**SURVEYS OF STUDENTS AND FACULTY**	60
	Student Survey	60
	Faculty Survey	75
	Summary and Conclusions	81
IV.	**THE ROLE AND EFFECTIVENESS OF THE STATE CHANCELLOR'S OFFICE**	83
V.	**COST ANALYSIS**	87
VI.	**CONCLUSIONS AND RECOMMENDATIONS**	97

EXECUTIVE SUMMARY

In 1987, the Evaluation and Training Institute (ETI) was contracted by the Chancellor's Office of the California Community Colleges to conduct a three and one-half year evaluation of matriculation, a legislatively mandated program intended to assist community college students in identifying and achieving their educational goals. This report presents the findings of ETI's evaluation of the implementation of matriculation during the first year (1987-88).

Matriculation Related Services Prior to 1987-88

The concept of matriculation has been a prominent theme in the community colleges since the early part of this decade, and many colleges have been moving toward the execution of such a program at varying rates since that time. A primary objective of the initial year of the evaluation was to establish the level of matriculation related services offered by the colleges prior to 1987-88 in order to provide a context in which to judge the colleges' progress in implementing the program in the coming years. A survey of college practices revealed that prior to 1987-88 the community colleges were providing services related to all of the components of matriculation. These services, however, were not delivered on the same scale or in as comprehensive a manner as implied in Seymour-Campbell Matriculation Act and the Board of Governors' plan. In specific:

* Most colleges were meeting the minimum requirements for providing orientation services to new students prior to 1987-88, but these services were offered on a strictly voluntary basis by over half of the colleges.

* Almost all colleges assessed students language and math skills prior to 1987-88, however, this assessment was generally confined to students enrolling in college level math and English courses. In addition, only a minority of schools reported conducting the additional forms of assessment specified in the Board of Governors' plan, including assessment of study and learning skills, support service needs, interests and aptitudes.

* Counseling and advisement were provided by all colleges prior to 1987-88, but participation was strictly voluntary at all but a small number of colleges. In addition, less than 30 percent of the colleges developed an individual educational plan as part of the counseling process.

* Beyond the follow-up required of students participating in categorically funded programs, student follow-up was restricted at most colleges to the notification, counseling and tracking of students on probation. Although all colleges notified probationary students of their status, these students were not required to receive counseling at the majority of institutions.

* Sixty-five percent of the colleges reported that they had conducted research and evaluation activities prior to 1987-88, but these activities were generally limited to validation studies of assessment practices and demographic analysis of enrollment trends as opposed to a comprehensive program of institutional research and program evaluation.

On the basis of our survey, we concluded that the implementation of matriculation will require a major expansion of services for the great majority of colleges. In order to fully implement the program, most colleges will need to greatly expand student service activities, significantly improve their data processing capabilities and respond to the changing instructional needs of students.

Program Implementation in 1987-88

Given this "before picture" of where the colleges were in relation to the delivery of matriculation related services, ETI also collected data on the activities the colleges had undertaken in implementing matriculation in 1987-88. Specific accomplishments reported by the colleges included the following:

* Sixty percent of the colleges reported expanding their orientation programs to serve additional numbers of incoming students, while 60 percent also reported implementing new types of orientation services such as special activities for special needs populations.

* Over 70 percent of the colleges expanded their existing assessment programs by serving additional numbers of students or by increasing or changing the types of assessment provided.

* Almost three-quarters of the colleges expanded their counseling programs by serving additional numbers of students; one-half developed a format for an individual educational plan, and one-third initiated the use of these plans in counseling sessions with new students.

* Eighty percent of the colleges had conducted in-service training and staff development activities related to matriculation for college staff and faculty.

In the initial year of program implementation, the colleges focused upon planning and initiating the preliminary phase of matriculation services, (i.e., the orientation, assessment and counseling of incoming students), and devoted limited attention to the components of follow-up and institutional research. This focus seems logical given that matriculation required a major expansion of the level of services the colleges were delivering in these areas.

Barriers to Program Implementation

The evaluation revealed four major factors which impeded the colleges' implementation of matriculation, including:

Cutbacks and Delays in Funding. Without any doubt, the colleges' progress in implementing matriculation was most severely impacted by a major reduction in state level funding and delays in the distribution of state monies to the local level. Ninety-two percent of the colleges reported that funding cutbacks and delays impacted the implementation of their program in 1987-88, primarily by prohibiting the hiring of additional staff, particularly counselors, required to support matriculation. As a consequence, the colleges either restricted the number of students served through matriculation and/or delivered the services in a large group format. Beyond the reduction in services, a secondary impact of the funding cut was the generation of skepticism among the colleges regarding the importance and future of matriculation.

Poor Communications Between the Chancellor's Office and the Field. Another major factor which seriously impacted program implementation was poor communication between the Chancellor's Office and local colleges. Almost 40 percent of the colleges in the state perceived that the Chancellor's Office had been ineffective in coordinating the program on a statewide level. The primary complaints expressed by college staff regarding the Chancellor's Office centered around the lack of precise and specific direction regarding the program and inconsistent information and responses to colleges' inquiries.

Limited Data Processing Capabilities. Limited data processing capabilities also impeded the program at many colleges. Over one-third of the colleges reported that limitations of their existing data processing systems had interfered with program implementation. During the course of the evaluation site visits, staff at most colleges reported that the data processing allocation provided to support the implementation of matriculation was inadequate and that implementation of additional data processing support would require from 6 months to two years.

Defunding of the Statewide MIS. Problems with local colleges' management information systems were compounded by the defunding of the Statewide MIS. Many local college staff view the Statewide MIS as a key component of data processing support for the matriculation program. The defunding of the system delayed the development of local data processing support for the program at many campuses.

Outcomes of Surveys of Students and Faculty

In order to obtain a broader perspective on the implementation and outcomes of matriculation, ETI conducted statewide surveys of students and faculty. The sample of students responding to ETI's survey included a disproportionate number of younger, White students. In this respect the survey outcomes cannot be generalized to the entire population of community college students as a whole. However, the survey did produce some significant findings which had important implications for the matriculation program, including:

- The majority of students receiving matriculation services perceived that they benefitted from these services. These perceptions should allay concerns that matriculation will be perceived as a barrier by many students.

- Despite the fact that most students perceived they benefitted from matriculation, 40 percent of those surveyed indicated that they were confused regarding which courses they should be taking. These responses indicate that the colleges need to do more in helping students to design their programs, and need to provide alternatives when students' desired courses are full or offered at inconvenient times.

- A significant proportion of students surveyed reported that they encountered problems in enrolling in their desired courses either because they were full or were offered at inconvenient times. If matriculation is to achieve its intended objective of making the colleges more responsive to the needs of students, the issue of course offerings and schedules must be dealt with at both the state and local college level.

- The process of defining an educational goal requires time, particularly for younger students. This process cannot be circumvented by matriculation, but must instead be incorporated into the program. In terms of the delivery of the different program components, this means that intensive counseling and the development of an educational plan should be delayed until after the first term, particularly for younger, first-time college students.

- Matriculation does increase students' awareness of the support services available to them, but does not seem to have a consistent effect on students' utilization of these services.

- The majority of students are satisfied with the support services they receive. Those services which the survey data indicate would most warrant improvement, however, include employment/job placement services, health services, childcare services and personal counseling services.

- Preliminary analysis of self-reported data on student grades indicates that matriculation has not yet impacted student success in this regard. Until other data on students' academic history are available, however, no definitive conclusions regarding the impact of the program upon student success can be drawn.

Interpretation of the faculty survey outcomes was also limited because of an inadequate response rate. The analysis of responses did suggest the following, however:

- Faculty's participation in the matriculation program has been relatively limited;
- Those faculty who were able to evaluate the impact of the program upon their colleges and students were generally positive regarding its effects;
- The majority of faculty felt that the matriculation process should be mandatory; and
- The majority of faculty do not yet perceive that matriculation has had a major impact upon the instructional program at their schools.

Other Impacts of Matriculation Upon the Colleges

The evaluation also examined how matriculation was impacting the colleges' instructional programs and students access and found:

Increased Awareness of the Need for Remediation. Perhaps the most significant impact of matriculation is the increased recognition of an extensive need for remediation among new community college students. During the course of the telephone survey of matriculation coordinators, more than 30 percent of them indicated that assessment had identified a greater need for remediation at their colleges than had previously been recognized. During the course of the study site visits, ETI was told **at one college that 85 percent of incoming students were found to require remediation in reading skills, and that approximately 1400 students were on the waiting list for remedial English courses.** Other site visit colleges reported less dramatic figures in terms of the need for remediation, but the majority reported that their remedial programs had to be expanded, or they were planning a future expansion, to accommodate the increased need identified through matriculation.

Although these expansion efforts generally enabled the colleges to serve students' needs for remediation, they strained the facility and staffing resources of the institutions. In addition, at those colleges where the demand for remediation could not be met, faculty and administrators reported that many students were "shut-out" of the college since they couldn't enroll in the other courses in which they were interested without having completed their remedial coursework.

No Initial Impacts upon Student Access. Concerns that matriculation may serve as a barrier to students' enrollment in the colleges have been discussed throughout the system. During the course of this initial year we found, however, that with one exception, none of the colleges experienced a decrease in enrollments or a major shift in demographic patterns of enrollment. In fact, most colleges reported increased enrollments.

Recommendations

On the basis of the evaluation findings, ETI makes the following recommendations:

*** Full funding for the implementation of matriculation should be provided to the colleges by the Legislature.**

The implementation of matriculation am as defined in the legislation and the Board of Governor's plan, and indeed in the local implementation plans of many colleges, is too ambitious to be achieved under cutbacks in funding. The success of the program will be dependent upon the full commitment of resources and effort on the part of the Legislature and the community college system.
In the absence of full funding, the Legislature and the Board of

*** A five year timeline should be established for the evaluation of matriculation, and any decisions regarding the effectiveness and future funding of the program should be delayed until the completion of the 1991-92 program year.**

The current timeline of the evaluation requires that the final report on matriculation be submitted to the Legislature by March, 1991. Given the funding cutbacks and delays in program implementation, ETI does not believe this timeline allows for a complete and thorough evaluation of the impact of the program.

*** The Chancellor's Office should allocate adequate resources and staff to ensure the effective coordination of the matriculation program on a statewide level.**

The poor quality of communications between the Chancellor's Office and the field was previously discussed. The future success of the program will in part be dependent upon the quality of leadership and support provided the field by the Chancellor's Office.

*** The Board of Governors and State Chancellor must clearly define the level of autonomy individual colleges will have in the implementation and evaluation of matriculation. In the event local colleges are to be held accountable for certain statewide program objectives, these objectives must be clearly communicated to the field.**

The requests from local colleges for more specific direction and guidance regarding matriculation raises the controversial issue of local autonomy and control. If the Board and Chancellor wish to maximize the local autonomy of the colleges, then colleges must be free to define at the local level how they will implement matriculation and the criteria by which they will evaluate its success. On the other hand, if the Board of Governor's and Chancellor's Office choose to define certain objectives to be achieved on a statewide basis through matriculation, then these objectives must be clearly and specifically communicated to the field.

*** As part of their annual progress reports, colleges should be required to identify student needs identified through the matriculation program and define how they will address those needs in the coming year. Following the review of local college plans, the Chancellor's Office should in turn identify statewide issues requiring action and a plan for addressing them.**

As discussed, matriculation has identified a greater need for remedial instruction than was previously recognized at many colleges. If matriculation is to achieve one of its primary objectives in making the colleges more responsive to the needs of students, plans for meeting the need for remediation and other future needs will have to be developed on a state and local level.

*** Faculty involvement in matriculation should be strongly encouraged at the local and state levels. Faculty should be kept informed about the implementation and outcomes of the program on a regular basis, and faculty should be well represented on local and state level matriculation planning committees.**

The evaluation outcomes indicate that faculty involvement in matriculation has been very limited. If matriculation is to result in increased institutional responsiveness within the colleges, however, faculty must be aware of the program and involved in responding to the student needs it identifies.

Finally, specific recommendations for the most effective delivery of matriculation services include:

*** The development of a student educational plan, as required in the Board of Governors' plan, should be delayed until after the completion of a student's first term.**

*** In orientation and initial counseling sessions, major emphasis needs to be placed upon helping students select their courses. In this regard the development of a first term course schedule would be a useful exercise. College staff should also be readily available during the registration process to assist students in selecting alternative courses if they are unable to follow their program.**

I. INTRODUCTION

Matriculation in the California Community Colleges

ETI was contracted by the Chancellor's Office of the California Community Colleges to conduct a three and one half year evaluation of matriculation, a legislatively mandated program intended to assist community college students in identifying and achieving their educational goals. In helping students to succeed, the Seymour-Campbell Matriculation Act specifies that the colleges shall make available to students a number of services, including at a minimum:

1) Processing of an application for admission;

2) Orientation services designed to provide students with information about campus procedures, academic expectations, financial assistance and other matters;

3) Assessment and counseling services to determine students' competency in language and computational skills; evaluate their study and learning skills; assist students in identifying their aptitudes, interests, and educational objectives; identify support service needs; and provide advisement regarding course selection; and

4) Evaluation of each student's progress, and counseling for students who are enrolled in remedial courses, who have not declared an educational objective or who are on academic probation.

In addition, the Act declares that students have specific responsibilities within the matriculation process, including expression of at least a broad educational intent upon enrollment, declaration of a specific educational objective within a reasonable time period, diligence in class attendance and completion of assigned coursework, and completion of courses and maintenance of progress toward a stated educational goal.

In addition to the requirements of the original legislation, policy guidelines for the matriculation program were adopted by the Board of Governors of the California Community Colleges in January, 1987. These guidelines were set forth in a document entitled Student Matriculation: A Plan for Implementation. The plan defines two broad goals for matriculation: 1) To increase the extent to which students attain their educational objectives; and 2) to increase the effectiveness with which colleges and districts deliver their educational programs and services. In addition, it expands upon the matriculation services defined in AB3 to define seven components which must be incorporated into local colleges' matriculation programs, including admissions, orientation, skills assessment/student evaluation, advising/counseling, student follow-up, institutional research/evaluation and coordination and training. For each of these components, the Board of Governors has specified minimum requirements to be adhered to by the colleges, along with additional recommendations for component activities. These requirements and recommendations are discussed in detail in subsequent sections of this report.

The Statewide Evaluation of Matriculation

In addition to specifying the nature of matriculation, the Seymour-Campbell Act specifies that all districts participating in the program shall, with the assistance of the State Chancellor, evaluate the effectiveness of matriculation services. Local colleges are also charged in the Board of Governors' plan with developing the capability to conduct institutional research and program evaluation related to matriculation on a local level. In addition, the State Chancellor's Office has contracted with ETI to provide an external evaluation of the program's implementation and outcomes at a statewide level.

This initial report presents the outcomes of ETI's formative evaluation of the 1987-88 program year, the first year of program implementation. The report summarizes the findings from: 1) an in-depth review of the local matriculation plans and progress reports submitted to the State Chancellor's Office by the local colleges; 2) a telephone survey of matriculation program coordinators at all 106 colleges; 3) site visits to a selected sample of 15 colleges; 4) surveys of students and faculty; and 5) a cost analysis of the matriculation program.

This report focuses upon the manner in which matriculation was planned and initiated at the colleges during 1987-88, and, with minor exceptions, does not discuss program outcomes related to student success. A comprehensive evaluation of such outcomes would be premature at this early stage of program implementation. The execution of matriculation on a statewide basis in the community colleges represents a major educational reform which has not been undertaken on such a large scale anywhere else in the nation. The colleges required time in the initial year of the program to plan for and coordinate a major expansion of their services. In addition, many colleges did not receive matriculation funding until late in the Spring of 1988. Given these factors, any analysis of the impact of the program on measures related to student success would be inappropriate at this time.

Evaluation Activities

The five major activities undertaken in compiling the information included in this report were:

1. A Review of Colleges' Three Year Plans for Matriculation and 1987-88 Progress Reports. As required in AB3, local colleges developed and submitted to the State Chancellor's Office individual plans for the implementation of matriculation in December, 1987. In addition, the colleges submitted a report on their progress in implementing their local plans to the Chancellor's Office at the end of October, 1988. ETI undertook an extensive review of both the colleges' plans and progress reports as a preliminary step in the evaluation process. The purposes of this review were to: 1) obtain "baseline" data about the level of matriculation related services the colleges were offering prior to 1987-88; 2) assess the adequacy of the colleges' plans in relation to the program guidelines set forth in the original legislation and the Board of Governors' plan for program implementation; and 3) evaluate the progress the colleges have made in implementing their plans in 1987-88. The review revealed a wide disparity in the nature and detail of information reported by the colleges, however. As a consequence, the clarification of this information became a major focus of the telephone survey of matriculation coordinators described below.

2. Telephone Survey of Matriculation Coordinators. The telephone survey was administered to the matriculation coordinators (including acting and permanent coordinators) at all 106 colleges. The survey was designed to collect four types of information: 1) Data on the level of matriculation related services that the colleges were providing prior to the formal implementation of the matriculation program in 1987-88; 2) detail on the types of activities the colleges completed in implementing the various components of matriculation in 1987-88; 3) perceptions of the impact matriculation has had to date on the colleges; and 4) perceptions of the role and effectiveness of the State Chancellor's Office in coordinating the implementation of the program.

3. Site Visits to A Selected Sample of 15 Colleges. ETI staff conducted site visits to 15 colleges across the state selected to provide diversity with respect to size as measured by total student enrollments; percentage of minority enrollment; and the level of matriculation related services being provided by individual colleges prior to 1987-88. During the

course of these visits, ETI staff interviewed the: 1) College President; 2) Chief Student Services Officer; 3) Chief Instructional Officer; 4) Admissions and Records Officer; 5) Head of Counseling; 6) Chief Management Information Systems Officer and data processing staff involved with matriculation; 7) Chair of the Matriculation Planning Committee; 8) Chair of the Academic Senate and other faculty representatives involved with the program; 9) staff or faculty responsible for coordination of the orientation, assessment, counseling, follow-up and institutional research components; and 10) the Matriculation Coordinator.

The purpose of these visits was to provide additional detail on the manner in which matriculation was being implemented across the different colleges. During the course of the visits, ETI stressed to all college staff that the individual colleges were not being evaluated, and that no individual college would be named or discussed in the final evaluation report. Rather our purpose was to gain a more detailed understanding of the implementation of the program in different types of college environments.

4. Surveys of Students and Faculty. In order to obtain additional information concerning the impact of matriculation on students and faculty, ETI conducted written surveys of these two groups at the site visit colleges. The survey instruments were designed to measure the extent of students' and faculty's participation in the matriculation process, along with program outcomes and perceptions of its effectiveness.

5. Cost Analysis. During the course of the evaluation, ETI is also examining the costs of matriculation with the assistance of Associates for Educational Finance and Planning (AEFP). During this initial year, AEFP focused upon developing a baseline data set of matriculation expenditures for use in making comparisons in subsequent years.

The remainder of this report summarizes the findings of these evaluation activities: Section II discusses the types of services provided under each component of matriculation prior to 1987-88, the major activities completed by the colleges in the first year of program implementation, and the barriers encountered in putting the program in place; Section III presents the outcomes of ETI's surveys of students and faculty; Section IV looks at the role of the State Chancellor's Office; Section V discusses program costs, and Section VI summarizes the outcomes of the evaluation and presents conclusions and recommendations.

II. MATRICULATION SERVICES PRIOR TO 1987-88 AND THE FIRST YEAR OF PROGRAM IMPLEMENTATION

The concept of matriculation has been a prominent theme within the community colleges since the early part of this decade, and many colleges have been moving toward the execution of such a program at varying rates since that time. In order to obtain a baseline picture of the level of services being provided prior to statewide implementation of matriculation, ETI collected information through the telephone survey of coordinators about the types of services provided by individual colleges under the major program components. Collection of baseline data was necessary to provide the context in which to judge the progress of the colleges as they began the implementation of matriculation in 1987-88, and as they continue implementing the program over the next two and one-half years.

Following a discussion of the services colleges offered prior to matriculation, the matriculation coordinators were asked to identify the activities that were completed as the components of matriculation were implemented in 1987-88. As previously discussed, ETI staff had abstracted as much of this information as possible from the 1987-88 update reports submitted by the colleges to the State Chancellor's Office. We found, however, wide discrepancies in the nature and specificity of the information the colleges provided regarding their initial program year activities. The telephone survey of coordinators allowed for clarification, and the collection of more specific and detailed information on colleges' activities related to program implementation.

In the remainder of this section each of the seven components of matriculation is discussed separately, first, in relation to the level of services provided by the colleges prior to 1987-88, and then in relation to the activities undertaken in implementing the component in the first year of matriculation. The required and recommended elements for each of the components of matriculation specified in the Board of Governors' plan are utilized as the benchmarks for evaluating the level of prior services and the progress that the colleges have made in implementing the program. The discussion of the admissions component is delayed until last because it can best be understood in the context of the other components.

Examination of information on the colleges' first year activities for matriculation should take into consideration both the cutback in the amount of State funding for the program and the long delays in the receipt of funds by the colleges. Many coordinators reported that their districts did not receive their funds until late Spring, too late in many instances to hire additional staff. Despite these obstacles, however, the survey revealed that the majority of colleges did expand existing services to a major extent, as well as initiate new activities/services for matriculation.

ORIENTATION

Orientation Services Prior to the Implementation of Matriculation

Under the Board of Governors' parameters for matriculation, the minimum requirements for orientation dictate that each college acquaint all new students with the college's programs, services, academic expectations, procedures, and grounds. In addition, colleges are instructed that orientation should be available to students on a timely basis.

Prior to 1987-88, the great majority of colleges (91 percent) were providing orientation services to students. (See Table II.1.) Orientation programs consisted primarily of a one to four hour presentation providing general information about the college, student services, academic programs, registration and other campus procedures. Approximately forty percent of the colleges reported that they offered special orientation sessions for special needs students, (including EOPS students, disabled students, limited English speaking students, transfer students and athletes). In addition, forty percent of the colleges offered orientation courses which generally went beyond providing students with information about the college to include some aspects of assessment and educational planning.

Table II.1. Types of Orientation Services Provided by the Colleges Prior to the Implementation of Matriculation

Orientation Format	Percentage of Colleges Reporting
One to four hour presentation	70%
Special orientation sessions for special needs populations	43
Orientation classes/courses	37
All day orientation program	16

Students' attendance at orientation was strictly voluntary at 52 percent of the colleges, however. At the remaining colleges, students were generally excluded from attendance if: 1) they were enrolling in less than a specified number of units (38% of the colleges utilized this exemption with six, nine and twelve units being the most common cut-offs); 2) they had already completed a college degree (21 percent); and/or 3) they were enrolling in courses not dependent upon skill prerequisites (22 percent).

In addition to providing orientation on a timely basis, the Board of Governors' parameters recommend that colleges begin orientation prior to the time a student begins classes, and extend orientation programs beyond the beginning of classes. Table II.2 indicates how long prior to classes colleges initiated orientation activities. Ninety-one percent of the colleges began orientation prior to the start of classes, with an average "lead time" of seven weeks. As indicated in the table, however, the largest proportion of colleges began orientation one to four weeks prior to the beginning of classes. Those colleges indicating that they started orientation more than sixteen weeks prior to classes generally made presentations at area high schools during the Spring. In addition, fifty-three percent of the colleges reported that orientation activities extended beyond the beginning of classes, with orientation courses being the primary form of extended orientation.

Table II.2. Number of Weeks Prior to Start of Classes That Colleges Began Orientation Activities*

Number of Weeks	Percentage of Colleges Reporting
One to four weeks	58%
Five to nine weeks	13
Ten to fifteen weeks	15
Sixteen weeks or more	14

*Data reflect college orientation activities prior to 1987-88

The final two recommendations made by the Board of Governors' regarding orientation are that: 1) districts/colleges consider utilizing workstudy and/or student employees in orientation programs; and 2) the utilization of student body organizations in orientation be considered. Table II.3 presents data on the types of college staff involved in orientation programs prior to the implementation of matriculation. As indicated, counselors were used most extensively, and less than 20 percent of the schools were using student workers or student body organizations in the orientation process.

Table II.3. Types of College Staff Involved in the Delivery of Orientation Prior to 1987-88

Types of Staff	Percentage of Colleges Reporting
Counselors	87%
Paraprofessionals	24
Assessment testing personnel	23
Faculty members	19
Student body organizations	19
Work study/student employees	17

As a final measure of the level of orientation services provided prior to the implementation of matriculation, the matriculation coordinators were asked to evaluate the scope of their previous programs. As shown in Table II.4, approximately half of the coordinators considered their programs to be very limited or limited, while approximately one-third judged them to be adequate. Twenty-two percent considered their prior programs to be extensive or very extensive.

Table II.4. Matriculation Coordinators' Evaluations of the Scope of Orientation Services Delivered Prior to 1987-88

Rating	Percentage of Colleges Reporting
Very Limited	17%
Limited	30
Adequate	31
Extensive	17
Very extensive	5

In summary, most colleges were meeting the Board of Governors' minimum requirements for orientation services prior to the statewide implementation of matriculation in terms of the content and the timing of the delivery of these services. Additionally, substantial numbers of colleges went beyond the Board of Governors' parameters in providing special orientation services to special populations, and long term orientation and support to new students through orientation courses.

The major distinction between prior orientation services and those provided under matriculation is that for over one-half of the colleges, student participation in previous orientation programs was strictly voluntary. In addition, the recommended utilization of student workers and student body organizations in the orientation process prior to 1987-88 was found at less than 20 percent of the colleges. As discussed below, however, an additional one-quarter of the colleges surveyed began using students in orientation in 1987-88.

Activities Completed in Implementing Orientation in 1987-88

Table II.5 identifies the major activities individual colleges completed in implementing the orientation component of matriculation in 1987-88. Sixty percent of the colleges reported that they expanded their existing orientation programs either by offering additional sessions (48%) and/or covering additional topics (34%). Additionally, 60 percent of the colleges initiated new types of orientation activities in 1987-88, including orientation courses, small group sessions, special activities for special needs populations and all day orientation programs (6%).

Table II.5. Activities Completed by Local Colleges in Implementing the Orientation Component (1987-88)

Activity	Percentage of Colleges Reporting
Expansion of existing orientation program	60%
Additional sessions provided	48
Additional topics covered	34
New orientation activities initiated	60
Orientation courses	18
Small group sessions	18
Special activities for special needs populations	18
All day orientation program	6
Orientation materials developed/produced	62
Information materials on matriculation developed/produced	55
New orientation activities planned	37
Student utilized in orientation for the first time	27
No activities completed	6

Over half of colleges developed and produced orientation materials (62%) and/or developed and produced informational materials about matriculation in 1987-88. During the course of the site visits, ETI staff were able to review the materials produced at several of the schools and found them to be informative, comprehensive and effectively presented.

The site visits revealed additional information about the implementation of the orientation component. At most site visit schools, orientation sessions were combined with the assessment process, and frequently with group counseling sessions as well. Generally these activities were condensed into a four to six hour period, although several of the schools offered all-day programs and one school offered a two-day program for students from out of the area. Most colleges also reported that they found special needs students required separate programs, including in particular ESL students.

The principal problems colleges encountered in implementing new orientation activities or expanding existing services were related to the lack of facilities and an inability to enforce participation. At more than one site visit college, staff reported that instruction and student services competed for classroom space in scheduling courses and matriculation activities during the initial weeks of the semester. In addition, although all the colleges referred non-exempt students to orientation sessions, many had no method of tracking whether or not the student did in fact attend the orientation session.

During the course of the site visits, we also found that schools planning and implementing orientation courses were experiencing mixed success. At two colleges newly developed courses had been eliminated because of participation and space problems. At one of these colleges where non-exempt students were obliged to register for the course, approximately 55 percent of the students failed to attend the class in which they were enrolled during the first semester the course was offered, and 80 percent failed to attend in the subsequent semester. Other site visit schools were in the pilot stage of implementing such courses, and were attempting to develop incentives for participation.

Finally, over one-quarter of all the colleges reported utilizing students in orientation activities for the first time last year. When combined with the number of colleges reporting that they already used students and/or student organizations in the orientation process, these data indicate that almost one-half of the colleges are now meeting the Board of Governors' recommendation regarding the utilization of students in the orientation process.

ASSESSMENT

The minimum requirements for the assessment component of matriculation specified by the Board of Governors' include the assessment of non-exempt students' competencies in language and computational skills; assistance in the identification of aptitudes, interests and educational goals; the evaluation of learning and study skills; and referral to specialized support services and/or to supplemental assessment as required.

Assessment Practices Prior to the Implementation of Matriculation

Almost all of the colleges surveyed (98 percent) had been assessing students' language skills prior to the implementation of matriculation, and over 90 percent had been assessing computational skills. (See Table II.6.) Close to half of the colleges also conducted ESL assessment, while a minority of schools conducted assessment of aptitudes, interests and study and learning skills. These latter forms of assessment were generally offered on a limited basis, to students seeking career counseling or participating in extended orientation or personal planning courses.

Table II.6. Forms of Assessment Provided by the Colleges Prior to the Implementation of Matriculation

Forms of Assessment	Percentage of Colleges Reporting
Competency in language skills	98%
Competency in computational skills	91
ESL assessment	49
Interests	23
Aptitudes	14
Study and learning skills	13

Assessment was generally not mandatory, although 65 percent of the schools required it of students enrolling in courses dependent on skill prerequisites, which included primarily college level math and English courses. Other criteria utilized for exempting students are identified in Table II.7.

Table II.7. Criteria Utilized by the Colleges in Exempting Students from Assessment Prior to Matriculation

Criteria	Percentage of Colleges Reporting
Students enrolling in courses not dependent on skill prerequisites	65%
Students enrolling in fewer than six units	24
Students who had already completed a college degree	24
Students who had completed courses at a prescribed level in English or math	11
Strictly voluntary for all students	11
Students with test scores from other institutions or college entrance tests	11

Only 15 percent of the colleges reported that they did a systematic assessment of student support service needs prior to 1987-88. Generally this assessment was accomplished by asking students about specific support service needs through their application for admission or an educational planning questionnaire distributed during orientation or counseling sessions. Students were generally informed about services during the orientation or counseling process, but only three schools reported that individual student service units made follow-up attempts to contact those students expressing an interest in their services prior to matriculation.

In addition to specifying the forms of assessment required, the Board of Governors' plan recommends that: 1) districts and colleges collect assessment results in such a way that they can be entered into a computerized student information system; and 2) that districts and colleges develop local policies governing access to computerized student information. In the telephone survey, 70 percent of the colleges reported that assessment outcomes were computerized prior to 1987-88, although only the outcomes of math and language assessment were generally included in such computerized files. **Subsequent questions regarding the utilization of data processing funds in the implementation of the assessment component revealed, however, that although test results were computerized, they were generally not readily accessible to counselors who lacked the computer terminals necessary to access the data.** In addition, in no instance were assessment records found to be an integrated component of a comprehensive student information system.

Seventy-three percent of those reporting that assessment results were computerized stated that local policies governing access to student information had been developed. Generally these policies took the form of restricting access to assessment outcomes to certain college staff, generally assessment personnel, categorical program staff and counselors. Some colleges reported that secret access codes were utilized to ensure that unauthorized personnel could not retrieve assessment results from the computer. The remaining 27 percent of colleges had no policies regarding the confidentiality of their assessment data.

In summary, almost all of the colleges were meeting the minimum requirement of offering assessment of competencies in language and math skills to students prior to 1987-88. However, this assessment was generally limited to students seeking to enroll in college level math and English courses. In addition, only a minority of schools provided the additional forms of assessment identified in the Board of Governors' plan, and these services were generally provided on a limited basis to students seeking career counseling, tutoring assistance or educational/life planning. In addition, although a majority of colleges did computerize assessment outcomes, the survey results indicated that these computerized files were not readily accessible, and were not integrated with other student information in a manner which would make them useful for counseling and educational planning.

The language of the Board of Governors' plan for matriculation suggests, then, that colleges will need to significantly expand the range of assessment activities provided to students under matriculation. The telephone survey and site visits to colleges revealed, however, that a number of issues will have to be resolved for the expansion process to proceed.

Implementation of Assessment in 1987-88

Table II.8 lists the activities the colleges completed in implementing assessment in the first year of matriculation. As indicated, 71 percent of the colleges which had been conducting assessment reported that they expanded their assessment programs by serving additional students (59 percent of colleges) and/or by increasing or changing the forms of assessment (48 percent).

Those altering their assessment programs generally made a change in the instruments used for language and math testing. Less than 20 percent of the colleges added additional forms of assessment to their existing programs. Discussions with college staff during the course of ETI's site visits revealed that many colleges were delaying expanding the scope of their assessment process to include other dimensions specified in the matriculation legislation (i.e., learning/study skills, interests/abilities, support service needs, and educational objectives). The primary factors identified for this delay were the cutbacks and delays in receiving funding and uncertainty regarding the mandatory versus voluntary nature of the full assessment process. Given the funding problems, schools reported that they focused on the assessment of computational and language skills since this testing alone consumed a great deal of effort and resources. Staff at several colleges indicated that they had not really had time to fully plan how the assessment process would be broadened.

The telephone survey of matriculation coordinators also revealed that over half of all colleges hired additional assessment personnel in expanding their programs, while an additional 44 percent made assessment services available at off-campus sites such as high schools or educational centers. Forty-four percent of the colleges also reported that they conducted validity studies of their assessment instruments. These efforts to validate assessment practices on an individual college level represent an additional effort beyond the required participation of all schools in the Chancellor's Office's evaluation of assessment practices and instruments.

Table II.8. Activities Completed by Local Colleges in Implementing the Assessment Component (1987-88)

Activity	Percentage of Colleges Reporting
Expansion of existing assessment programs	71%
Additional students assessed	59
Forms of assessment increased/changed	48
Language skills	36
Computational skills	37
Aptitudes/interests	11
Learning/study skills	17
Support service needs	16
Initiation of new assessment programs	2
Assessment system/instruments purchased	2
Pilot assessment program initiated	1
Additional assessment personnel hired	58
Validity studies of assessment practices initiated/conducted	46
Assessment services made available off campus	44
Review of students' high school transcripts initiated	19

Table II.9 summarizes the activities related to the data processing support of assessment that the colleges completed in 1987-88. Eighteen percent of the colleges reported that they expended no data processing funds in relation to assessment. Thirty-nine percent of the colleges reported that they designed and/or implemented a new computerized system for the storage and retrieval of assessment outcomes, or enhanced an existing system to provide more ready access to test outcomes. An additional 13 percent of the colleges reported that they developed local policies governing access to computerized student information.

Table II.9. Activities Completed by Local Colleges in Implementing Data Processing Support for the Assessment Component (1987-88)

Activity	Percentage of Colleges Reporting
No data processing support funds were expended in relation to assessment	18%
Design of a new or enhanced system for computerized storage and retrieval of assessment results	39
Implementation of a new or enhanced system for computerized storage and retrieval of assessment results	39
Policies governing access to computerized student information developed	13

Additional Site Visit Findings Related to Assessment

At the site visit colleges, ETI found that major effort had been dedicated to expediting the assessment process so students could be provided with their results the same day. Many schools were utilizing scantron answer sheets which were scored while students attended an orientation program, and then distributed to students by counseling or assessment personnel who are available to explain and interpret the results. In all colleges, students were able to challenge assessment results.

During the course of the site visits, college staff also expressed several concerns regarding the assessment process. Principal among them was the issue of the voluntary versus mandatory nature of assessment and course placement. These concerns were attributed primarily to the law suit brought by the Mexican American Legal Defense Fund against Fullerton College. Many college staff interviewed during the course of the site visits felt that the State Chancellor's Office should establish a state level policy regarding this issue. In the interim, with the exception of one college where assessment was held to be mandatory, the site visit colleges reported that they "referred" all non-exempt students to assessment in a manner which implied that testing was a standard practice. If a student strongly protested being tested, however, they were exempted from the component and generally allowed to enroll in the courses of their choosing.

In practical terms, most of the site visit colleges could not enforce mandatory assessment and course placement because they lack the data processing capability and staff resources to ensure that students enrolling in courses with established prerequisites have been assessed and have achieved the required score. Even at those schools in which automated registration controls based on assessment outcomes were in operation, staff reported that significant numbers of students were able to "slip through the cracks" because of "glitches" in the system. Colleges are making progress in implementing and enhancing component tracking and registration control systems, but the experiences of the site visit schools suggest that it will be a minimum of one year before assessment controls can be effectively implemented on a large scale basis.

College staff also reported that moderate concern had existed about the impact of assessment upon enrollments prior to the implementation of matriculation, since assessment more than any other component, was perceived to be potentially threatening to students, particularly vocational/technical, part-time, re-entry and non-traditional students. Much of this concern had been allayed by the experience of the colleges over the past two years, during which time colleges enrollments have increased for most colleges. However, some concern was still reported to exist and comments of staff during the course of the interviews suggest that it would again become more of an issue if assessment and course placement were to become mandatory.

The site visits also substantiated the reports of matriculation coordinators that the expansion of assessment under matriculation had a major impact upon the remedial programs of the colleges. These impacts are discussed in more detail in a subsequent section.

ADVISEMENT, COUNSELING AND COURSE SELECTION

Counseling Services Prior to 1987-88

The minimum requirements for the counseling component specified in the Board of Governors' Plan include: 1) provision of a counseling process that enables a student educational plan to be completed for each new non-exempt student, and for such plans to be updated when of benefit to the student; and 2) utilization of the results of a comprehensive assessment, combined with appropriate counseling and advisement, to provide the programs and services deemed appropriate for student success.

With respect to the first requirement, all colleges were required to develop educational plans for students participating in specific categorical programs or services, including EOPS, and Disabled Student Program and Services (DSPS) prior to 1987-88. (See Table II.10.) Beyond these populations, however, only 27 percent of the colleges reported developing educational plans as a routine procedure for any student seeking counseling. Given that the receipt of counseling was strictly voluntary at the majority of colleges (see Table II.11), we would anticipate that, with the exception of specific student groups mentioned, a relatively small proportion of new students had educational plans developed prior to matriculation.

Table II.10. Student Groups for Whom Educational Plans Were Developed Prior to the Implementation of Matriculation

Type of Student	Percentage of Colleges Reporting
EOPS students	100%
Disabled students	100
Veterans	76
Financial aid recipients	62
All students receiving counseling	27
Students on probation	18
Students subject to dismissal	18
Transfer students	14
Occupational/technical students	8

Table II.11. Criteria Used in Exempting Students from Receiving Counseling Prior to the Implementation of Matriculation

Criteria	Percentage of Colleges Reporting
Strictly voluntary for all students	67%
Students enrolling in fewer than 6 units	19
Students who had already completed a college degree	10
Students enrolling in courses not dependent upon skill prerequisites	9
Evening students	4
Students taking courses to upgrade occupational skills	3

The Board requirements also specify that educational plans should be updated "when of benefit to the student." A change in a student's educational goal would be an important instance in which plans should be reconsidered and possibly revised. Prior to 1987-88, however, only eight percent of the colleges did any systematic tracking of changes in students' educational goals. Such tracking was generally accomplished by asking students to confirm or state their educational goal at registration for each term. Other colleges reported that if a student sought out counseling and advised the counselor that he/she had changed goals, the plan would be revised. However, the updating and revising of educational plans were generally left to the initiative of the student.

In regard to the use of assessment outcomes in placing students into courses prior to 1987-88, 94 percent of the colleges reported that they had utilized assessment outcomes in determining if students met prerequisites for English courses, while 73 percent reported that they used assessment outcomes in math course placement. Additionally, 12 percent of the schools indicated that assessment outcomes were used in determining entrance into special program areas such as nursing or fire fighting.

In addition to the minimal requirements, the Board of Governors' plan for matriculation recommends that districts/colleges develop models to utilize counselors, faculty and paraprofessionals to provide appropriate counseling and advisement services. As indicated in Table II.12, prior to 1987-88, counselors bore the primary load of delivering counseling services to students, with faculty and paraprofessionals being utilized at only a minority of colleges.

Table II.12. Staff Involved in Providing Counseling/Advisement Services to Students Prior to Matriculation

Staff Involved	Percentage of Colleges Reporting
Counselors	99%
Faculty	29
Paraprofessionals	15
Student/peer counselors	14
Assessment personnel	13

Given that relatively few colleges were developing educational plans for new students on a regular basis, the implementation of matriculation will require a major change in counseling practices and procedures on a statewide basis. In addition, the wording of the Board of Governors' plan regarding the placement of students into courses based on a comprehensive assessment combined with appropriate counseling, suggests a process which goes beyond colleges' prior practices of using assessment outcomes to judge students' readiness to enter English and math courses. In consideration of the level of counseling services provided students prior to 1987-88, we would anticipate that colleges will need to greatly expand the scope and amount of these services provided under matriculation.

The documentation of students' educational plans and subsequent revisions will also present a major recordkeeping task for the colleges. Prior to 1987-88, only seven percent of the colleges maintained computerized student educational plans, and then generally only on a limited basis. Discussions with college staff during ETI's site visits indicate that counseling staff believe that computerized records will be the only

feasible way to maintain educational plans in a useful manner. Many colleges reported in the site visits and the telephone survey that they are a minimum of one to two years away from the implementation of such sophisticated student recordkeeping systems.

Tasks Completed in Implementing Advisement/Counseling in 1987-88

Table II.13 summarizes the activities that the colleges completed in implementing the advisement/counseling component last year. As shown, the major change reported was the expansion of existing counseling services through serving additional numbers of students (74 percent of colleges). Additionally, slightly less than one half of the colleges designed a student educational plan, and almost one third of the colleges initiated the development of plans for new students. Additionally, 38 percent of the schools initiated the use of assessment outcomes in the advisement/counseling process.

The site visits provided additional information on the development of students' educational plans under matriculation. The majority of site visit schools restricted the initial planning horizon to the students' first term, since counselors perceived that many students would change their goals during the course of their first year and long range planning at such an early stage would be a wasted effort. In addition, some counselors were concerned that students might be overwhelmed by long range planning when they were just starting their college experience.

All of the colleges reported that staffing limitations prohibited the development of plans for all new non-exempt students in an individual session with a counselor prior to their first term registration. Most students developed first term plans in group sessions supervised by a counselor. In general, the planning process consisted of a counselor walking students through course and program requirements in order for the student to complete a planning sheet which the student retained for registration. Students were encouraged to see a counselor on an individual basis at a later time in the semester to refine their plans. With the exception of one college, however, students were not required to receive counseling for further development of their plans.

Table II.13. Activities Completed by Local Colleges in Implementing the Advisement/Counseling Component (1987-88)

Activity	Percentage of Colleges Reporting
Delivery of counseling services to additional numbers of students	74%
Student educational plan developed	49
Utilization of assessment outcomes in counseling process initiated	38
Student educational plans completed for incoming students	30
Faculty and/or paraprofessionals trained to perform advising/counseling	25
Method for tracking changes in students' goals developed	31
Faculty and/or paraprofessionals utilized in advising/counseling for the first time	17
Plan for utilizing faculty and/or paraprofessionals in advising/ counseling developed	20
Tracking of changes in students' educational objectives initiated	11

Following review of the colleges' matriculation plan updates for 1987-88 by ETI and the State Chancellor's Office, Chancellor's Office staff raised a concern that relatively few colleges had reported hiring additional counseling staff in the first year of program implementation. To explore this issue further, matriculation coordinators were asked a series of questions specifically regarding the hiring of counseling staff. Forty-seven percent of the colleges reported that additional staff were hired. Across these 40 colleges, a total of 71 FTE, or an average of two FTE counseling

staff were employed. However, these colleges had **intended** to hire a total of 133 FTE (an average of 3.7 FTE per school) during 1987-88, but did not do so because of reductions or delays in receiving matriculation funds. The remaining 53 percent of the colleges did not hire additional staff. Table II.14 summarizes the reasons given by coordinators at these colleges for not hiring new staff.

Table II.14. Reasons Given by the Colleges for Not Hiring Additional Counseling Staff in 1987-88

Reason*	Percentage of Colleges Reporting
Funding cutbacks	50%
Delays in receipt of matriculation funds	43
Hiring of additional counseling staff scheduled for subsequent years	18
Lack of facilities to house additional staff	4
Unable to recruit qualified staff	4

*Colleges could cite more than one reason

The site visits provided information on how the colleges were implementing matriculation with limited counseling staff. With one exception, staff at the site visit colleges reported that their counseling departments were inadequately staffed to meet the increased demands associated with matriculation. The colleges responded to this situation in various ways. Half of the schools reported that they had developed more systematic procedures for delivering counseling services, including such practices as having counseling stations at registration so that students could have immediate access to counselors in planning their course schedules. Other colleges, as previously discussed, used group sessions for the development of educational plans and course advisement. Some counselors objected to these practices since they perceived that they were interacting with students "en masse", a mode which they did not consider to be appropriate for counseling.

Four of the fifteen site visit schools also reported that they had reduced other counseling services to accommodate the increased workload generated by matriculation. These reductions took the form of eliminating evening counseling hours and eliminating counseling for continuing students during the peak periods of matriculation activities.

In the survey of matriculation coordinators, one quarter of the colleges reported that they trained faculty and paraprofessionals to perform advising/counseling functions, while 17 percent utilized these categories of staff in the counseling process. In the site visit colleges, we found these activities were undertaken on a pilot basis involving a limited number of faculty. Expansion of these efforts was scheduled for future years, and was dependent upon more adequate funding. Several of the colleges also reported that compensation of faculty for performing advisement had become an issue, and in one college was currently a subject of contract negotiations.

The activities the colleges reported completing in 1987-88 in providing data processing support to the advisement/counseling component in the telephone survey of matriculation coordinators are presented in Table II.15. Slightly less than half of the colleges were able to provide computer access to student assessment outcomes and other student records to counselors. As previously discussed, counselors' access to computerized student information was generally limited prior to matriculation due to the lack of computer terminals. The provision of additional terminals and more ready access to student information was an important first step in enabling counselors to provide more comprehensive and responsive advisement services. During the course of the site visits, we found that counselors perceived the installation of terminals in the counseling department to be one of the primary benefits of the matriculation program.

A smaller percentage of colleges also undertook the task of developing automated systems for recording the delivery of counseling services (27 percent) and computerizing educational plans (15 percent). Sixty-two percent of the colleges reported that prior to 1987-88 student services records were not computerized at all; 24 percent indicated that they were computerized to a minor degree; 11 percent indicated that they were computerized to a moderate extent; and only three percent indicated that they were computerized to a major extent. During the course of the site visits, most college staff indicated that the computerization of student services records is the only practical method for tracking the delivery of these services and the students receiving them. Given the status of computerization prior to 1987-88, the development and implementation of such automated systems is also a major challenge confronting the colleges in the implementation of matriculation.

Table II.15. Activities Completed by Local Colleges in Implementing Data Processing Support for the Advisement/Counseling Component (1987-88)

Activity	Percentage of Colleges Reporting
Computer terminals provided to counselors to permit access to computerized assessment results and other student information	49%
Automated system for recording counseling services designed/developed	27
Computerized educational plan designed/developed	15
Automated system for student services record-keeping implemented	7
Computerized educational plans implemented	4
No data processing support activities related to advisement/counseling were initiated/completed	21

STUDENT FOLLOW-UP

Follow-up Services Provided Prior to 1987-88

The minimum requirement for follow-up services under the Board of Governors' plan is that colleges "will assure that the academic progress of each student is regularly followed and that special efforts are made to regularly assist students who have not declared an educational goal, who are enrolled in pre-collegiate basic skills courses, and/or who have been placed on probation."

As was the case in the development of educational plans, the colleges were required to conduct systematic follow-up of specific groups of students including those participating in EOPS and DSPS, and those receiving financial aid prior to matriculation. (See Table II.16.) Beyond these groups, the majority of colleges (82 percent) also conducted some type of follow-up of students on probation, and over half conducted follow-up of students subject to dismissal (54 percent). However, many matriculation coordinators reported that such follow-up was conducted on a limited or sporadic basis. In addition, only 11 percent of the schools reported conducting follow-up of remedial students or students who had not declared an educational objective prior to matriculation.

Table II.16. Student Groups on Whom Follow-up Was Conducted Prior to the Implementation of Matriculation

Type of Student	Percentage of Colleges Reporting
EOPS students	100%
Disabled students	100
Financial aid recipients	100
Students on probation	82
Veterans	60
Students subject to dismissal	54
Transfer students	19
Students enrolled in remedial courses	11
Students who had not declared an educational objective	11
Occupational/technical students	8

The Board of Governors' plan also recommends that in doing follow-up, colleges: 1) provide appropriate counseling/advisement at least once each term to students not having clear goals, who are on probation, and/or who are enrolled in precollegiate basic skills courses; and 2) utilize computerized information systems to accomplish regular follow-up to detect early signs of academic difficulty, to communicate more frequently with all students concerning their progress, and to identify students having transfer or vocational potential for the purpose of providing specialized services or encouragement.

With respect to the first recommendation, 68 percent of colleges required counseling of students on academic probation prior to 1987-88; only 11 percent required it of students enrolled in remedial courses and four percent required it of students who had not declared an educational goal. In regard to the utilization of computerized information systems in conducting follow-up, slightly over half of the schools (52 percent) reported that they utilized computerized information systems in "some manner" in conducting student follow-up, principally to communicate with students concerning their progress. (See Table II.17.)

Table II.17. Utilization of Computerized Information Systems in Conducting Student Follow-up Prior to Matriculation

Use*	Percentage of Colleges Reporting
Communicate with students regarding their progress	38%
Detect early signs of academic difficulty	20
Identify students having transfer or vocational potential	5

*Some colleges reported multiple uses

In summary, beyond the follow-up required of specific groups of students, colleges' follow-up practices prior to matriculation were relatively limited in comparison to the required and recommended elements specified in the Board of Governors' plan. Only students on probation or subject to dismissal were generally subject to follow-up, but in not all cases did follow-up of these students **require** that they see a counselor, although counseling was generally suggested.

Tracking of students who have not declared an educational goal and who are enrolled in remedial courses will require a major expansion of the colleges' follow-up practices. As in other components, the accomplishment of these tasks will be dependent upon a concurrent expansion in the data processing capabilities of the individual schools. Close to half of the colleges were not utilizing computerized systems at all in follow-up prior to matriculation, and these schools will have to modify, expand or purchase appropriate computer systems in order to make full implementation of this component feasible.

Implementation of the Student Follow-up Component in 1987-88

Table II.18 identifies the tasks that the colleges reported completing in implementing follow-up in 1987-88. Half of the colleges focused upon developing new, or refining existing methods for following the academic progress of targeted students. However, over one-quarter of the colleges reported that they did not complete any activities in implementing follow-up in 1987-88. Many of these schools responded to cutbacks and delays in state funding by focusing their efforts on the "front-end" components of the program, principally orientation, assessment and counseling. Other schools had not intended to begin implementation of the follow-up component until subsequent years.

Table II.18. Activities Completed by Local Colleges in Implementing the Student Follow-up Component (1987-88)

Activity	Percentage of Colleges Reporting
Methods for conducting/refining follow-up of targeted students identified	50%
Students on probation	30
Students in remedial courses	25
Students with no declared educational goal	17
Follow-up of targeted students implemented	26
Students on probation	17
Students in remedial courses	13
Students with no declared educational goal	13
Counseling of students on probation initiated/ expanded	26
Counseling of students who had not declared an educational goal initiated	16
Counseling of remedial students initiated	15
No activities completed	28

During the course of the site visits, ETI found that the extent of follow-up activities was related directly to the level of data processing support available at the colleges. All of the colleges sent letters to students on probation which advised them of their status and encouraged them to see a counselor. One school with a high level of data processing support, however, was able to computer generate 14 different types of letters regarding students' academic progress based upon an automated evaluation of their grades.

With respect to students on probation, all but one of the site visits schools reported that their policy was to advise students by letter of their probationary status and to encourage them to see a counselor. Two of the schools reported that although their policy was to notify students on probation of their status, in reality, only a portion of probationary students were formally notified because of limited clerical support.

In addition, although the majority of the site visit schools encouraged probationary students to see a counselor, only one of the schools required a counseling session. In part, this voluntary nature of follow-up counseling reflected many of the colleges' inability to track whether students attended counseling. Perhaps the most effective mechanism for enforcing a counseling requirement would be to prohibit the registration of students until they have met with a counselor. This mechanism requires that a college have the capability during the registration process to identify a student on probation, have access to counseling service records to determine if the student did or did not receive counseling, and have some type of control mechanism to prohibit registration if the student did not. A minority of the site visit schools had established such a system for students subject to dismissal, but none had yet implemented such a process for students on probation primarily because of the current limitations of their data processing operations.

One of the site visits schools had instituted a limited type of follow-up with students without educational goals and those enrolled in remedial courses. These students were identified by computer and invited by letter to attend special group counseling sessions each semester in which the special needs of each category of student were addressed. The college could not provide data, however, on the number of students invited to, and attending these special counseling events. Other colleges in the site visit sample had not yet implemented follow-up with these groups, primarily because of limited data processing capabilities and limited counseling resources.

Three of the colleges in the site visit sample had, or were experimenting with, early warning systems. Two of these schools reported limited success. At one college, the matriculation coordinator reported that they had been trying to implement an early warning system "for years," but lack of faculty cooperation had sabotaged the development of the program. Faculty resistance was attributed to objections regarding the paperwork involved, as well as skepticism regarding how the colleges would be able to help the students identified. This experience was echoed by administrators at the other college currently attempting to pilot a similar system.

At the third college, more positive outcomes were observed. Faculty were asked in the fourth week of classes to identify students exhibiting academic difficulties or attendance problems. These students were sent mail-o-grams by the counseling department advising them of their problems and the types of assistance available. Staff reported that the program had greatly reduced the numbers of students who were later put on probation or were ultimately subject to dismissal.

Table II.19 identifies the data processing support activities for follow-up that the colleges reported completing in 1987-88. As indicated, almost half of the schools reported that they did not undertake any activities in this arena, either because of funding cutbacks or delays, or because such activities were scheduled for subsequent years. The major proportion of those colleges which did initiate activities focused upon the design and development of computerized systems to assist in follow-up activities, particularly with respect to communicating with students regarding their progress.

Several of the matriculation coordinators in multi-college districts were unable to report on data processing support activities because those tasks were the responsibility of centralized data processing operations in these districts. These coordinators also remarked that centralized district control of the utilization of the matriculation data processing funds was proving frustrating to individual colleges which wished to proceed with certain elements of program implementation but were impeded by the absence of immediate data processing support.

INSTITUTIONAL RESEARCH AND EVALUATION

Institutional Research/Evaluation Prior to the Implementation of Matriculation

The Board of Governors' parameters for institutional research and evaluation are perhaps the most general of all the components. The minimum requirements are that districts/colleges will: 1) adopt means for evaluating the effects of local matriculation practices in achieving their local and statewide purposes and objectives, including the impact on other college programs and services; and 2) participate in a statewide evaluation of matriculation during the first three and a half years of implementation.

Table II.19. Activities Completed by Local Colleges in Implementing Data Processing Support for the Student Follow-up Component (1987-88)

Activity	Percentage of Colleges Reporting
No data processing activities completed	46%
Computerized system designed to accomplish one or more of the following activities	30
Regular follow-up	18
Detect early signs of academic difficulty	20
Communicate with students regarding their progress	22
Identify students who have transfer or vocational interests	13
Identify potential need for specialized service	14
Computerized system to accomplish one or more of the following activities implemented:	16
Regular follow-up	6
Detect early signs of academic difficulty	11
Communicate with students regarding their progress	11
Identify students who have transfer or vocational interests	3
Identify potential need for specialized service	6

The telephone survey of matriculation coordinators revealed that prior to 1987-88, 55 percent of the colleges had an institutional research unit or staff person. Sixty-five percent of the colleges also reported that research or evaluation activities had been conducted either by college/district staff or an outside consultant in one or more of the areas listed in Table II.20. In addition to generating reports on student demographics and enrollment trends, prior research/evaluations focused primarily upon assessment practices and remedial instruction. Under matriculation, we would anticipate seeing a larger and broader research/evaluation effort on the part of the colleges.

Table II.20. Areas in Which Colleges/Districts Had Conducted Research/Evaluations Prior to Matriculation

Area	Percentage of Colleges Reporting
Assessment practices	60%
Student demographics/enrollment trends	56
Basic skills remediation	40
Counseling/advisement	36
Impact of student services	26
Follow-up studies	24
Orientation programs	22
Student goal definition	8

During the course of the site visits, ETI found that all of the college staff involved with institutional research and evaluation considered their ability to conduct an evaluation such as that required for matriculation to be very limited prior to 1987-88. The limited capacity of the colleges in this regard was attributed to the lack of adequate data or to the lack of research expertise at the college or district. Even at those campuses which had established institutional research operations prior to matriculation, college staff reported that the nature and format of the data collected restricted the type of research and analysis that could be conducted.

The Board of Governors' plan for matriculation also recommends that districts/colleges utilize data gathered from the various components of matriculation to develop an integrated, computerized data base that is useful for longitudinal research, planning and evaluation of student outcomes and institutional programs and services. Prior to 1987-88, 63 percent of the matriculation coordinators reported that their college/district had utilized a computerized data base in conducting such activities. In order to provide some measure of the comprehensiveness of these pre-existing data bases, survey respondents were asked to rate the extent to which they thought their management information systems (MIS) supported

research and planning activities. The outcomes are summarized in Table II.21. Over half of the colleges indicated that their MIS supported such activities only to a minimal or minor extent.

Table II.21. Matriculation Coordinators' Ratings of the Extent to Which Colleges'/Districts' Computerized Data Bases Supported Institutional Research and Planning Prior to the Implementation of Matriculation

Rating	Percentage of Colleges Reporting
To a minimal extent	21%
To a minor extent	31
To a moderate extent	38
To a major extent	10

In summary, although 65 percent of the colleges reported that they had conducted some form of research or evaluation prior to 1987-88, these activities were generally restricted to a relatively few areas. Furthermore, although well over half of the colleges reported that they had utilized a computerized data base in conducting research or planning prior to 1987-88, the majority of colleges indicated that their MIS was of limited utility in undertaking such tasks. These responses indicate that research, evaluation and planning should expand greatly as the colleges implement matriculation more fully. This expansion however will be dependent, upon a concurrent increase in the scope and capabilities of colleges/districts' management information systems. Although the utilization of a computerized data base is recommended and not required in the Board of Governors' plan, in practicality it is a prerequisite for any major type of research or planning activity. The survey responses indicate that over half of the colleges have some distance to go before their existing management information systems can provide the capabilities required.

Implementation of Institutional Research and Evaluation in 1987-88

Tables II.22 and II.23 identify the activities that the colleges completed in implementing institutional research and data processing support functions in 1987-88. Thirty-six percent of the colleges reported that they did not initiate any activity in research/evaluation, and 43 percent reported that they did not undertake any efforts to provide data processing support to this component. As was the case with student follow-up, this lack of activity was attributed to cutbacks and/or delays in funding or a conscious plan to delay implementation of the component to subsequent years. In addition, postponement of deadlines for the submittal of local evaluation plans, unclear direction from the State Chancellor's Office and defunding of the Statewide MIS led some colleges to delay activities in the area until requirements had been clarified.

Over one-third of the colleges, however, did develop a design for their local evaluations and/or initiated research activities, primarily in the area of validating assessment practices. Additionally, almost one quarter of the colleges developed or purchased software to support research and evaluation activities.

Table II.22. Activities Completed by the Colleges in Implementing the Research and Evaluation Component in 1987-88

Activity	Percentage of Colleges Reporting
No activities completed	36%
Research/evaluation activities initiated	42
Design developed for local evaluation	28
Institutional researcher identified/hired	22

Table II.23. Activities Completed by the Colleges in Providing Data Processing Support for the Research and Evaluation Component (1987-88)

Activity	Percentage of Colleges Reporting
No activities completed	43%
Development/purchase of software to support research/evaluation	23
Design of data base to support research/evaluation	16
Purchase of hardware for research/ evaluation	21

Among the site visit institutions, ETI found that two of the 15 colleges had not committed any resources or effort to implementing the evaluation and research component. Staff at another college indicated that they "had developed a plan to plan" institutional research, but due to delays in the implementation of the MIS and confusion regarding the outcome measures of interest to the state, they had not proceeded any further.

The remaining site visit colleges had established some rudimentary evaluation design and identified a person or committee to be responsible for institutional research. With a few exceptions, these research designs focused primarily upon analyzing the impact of matriculation on a limited set of student outcomes including: term to term persistence, course completion rates, transfer rates, number of degrees and certificates awarded, performance in recommended courses and attainment of educational goals. The colleges planned to examine these outcomes for different groups of students, including analysis of differences in educational goals, ethnicity, sex, age, and part-time versus full-time status. In addition, three of the site visit colleges intend to conduct "process" evaluations of each of the individual components through surveys of students, faculty and staff, and two colleges reported that they intend to look at the impact of student services upon the measures of student success.

The site visit colleges identified four major factors which had impeded the development of institutional research and evaluation. First was the lack of a clear specification of the outcome measures of interest by the Chancellor's Office. Some staff made reference to a memo which had

been received from the State Chancellor's Office regarding outcome measures, but they did not perceive that this directive was "the final word" on what they would be held accountable for reporting.

The second major barrier site visit college staff felt had hindered institutional research was the defunding of the Statewide Management Information System (MIS). Many college staff perceived that the MIS was the only logical vehicle for the collection and reporting of data related to matriculation, and the only way to ensure that standardized data were reported by all the colleges. Without the MIS, college personnel maintained, matriculation cannot be realistically evaluated.

In addition, the site visit interview respondents indicated that data processing and staffing limitations at their colleges impacted the implementation of institutional research. Many colleges indicated that existing staffing resources were not adequate to allow for the collection and data entry of all matriculation information requirements, particularly in view of the funding cutbacks. The hardware and software necessary to conduct appropriate data analysis were also lacking. Two of the colleges had, however, developed the necessary software to conduct analysis of the principal variables of interest in their research designs.

College staff also provided some interesting perspectives on the potential outcomes of future evaluations of matriculation. As the result of funding cutbacks at one college, the delivery of matriculation services had been restricted to new students taking more than 12 units. From the viewpoint of the institutional researcher, this student group was the most likely to be successful under any circumstance, and in fact, required matriculation to a much lesser extent than part-time students, which tended to include a greater proportion of non-traditional students and vocational/technical students. The researcher maintained that any future analysis of matriculation outcomes would be biased by the nature of the group receiving the services, and would not provide an accurate picture of the impact of the services. Another local researcher commented that he would anticipate increases in short-term student retention under matriculation because of the proper placement of students into courses as a result of the assessment. Testing would put students into courses in which they were more likely to succeed and this success would encourage students to persist. He maintained, however, that any long term gains would be dependent upon the full funding of matriculation and more importantly, instructional improvement.

COORDINATION AND TRAINING

The Board of Governors' single requirement for this component is that colleges conduct staff development activities that are deemed critical for matriculation to succeed. In addition, the Board recommends that districts/colleges assign coordination responsibility to a single position with a span of authority sufficient to encompass all matriculation activities; and that districts/colleges participate in activities sponsored by the Chancellor's Office to enhance the implementation of matriculation.

Since coordination and training activities related to matriculation did not specifically exist prior to the implementation of the program, the telephone survey of coordinators focused upon identifying what had been done in this area during 1987-88. Eighty percent of the colleges reported that staff development activities related to matriculation had been conducted. Table II. 24 shows the categories of personnel which had participated in training activities. A wide array of groups were included in staff development activities, which was a large scale effort on the part of the colleges across the State.

Table II.24. Categories of College Staff Participating in Staff Development Activities Related to Matriculation in 1987-88

Staff Category	Percentage of Colleges Responding
Admissions office staff	87%
Counseling staff	85
Assessment personnel	70
Student services staff	66
Faculty	63
Administrators	57
Student workers/volunteers	45

With respect to the coordination of matriculation, 89 percent of the colleges reported that they had selected a matriculation coordinator. As shown in Table II.25, coordinators represented a diversity of college staff, with the single largest group consisting of Deans of Student Services or Dean of Students. Matriculation coordinators falling into the "other category" included staff from various student services units, including EOPS Coordinators, ESL Coordinators, Learning Assistance Coordinators, Assessment Center Coordinators, and Directors of Transfer Centers.

On average, coordinators had been in their positions for 18 months, although 12 percent of the colleges reported that they had a matriculation coordinator for more than two years. (See Table II.26.) Across all schools, matriculation coordinators devoted an average of 45 percent of their time to their duties, although the amount of time spent ranged from less than ten percent to 100 percent. (See Table II.27.)

Table II.25. Categories of Staff Serving as Matriculation Coordinators

Category	Percentage of Reported
Dean of Student Services/Dean of Students	44%
Dean of Counseling/Head Counselor	13
Dean of Instruction/Dean of Academic Affairs	9
Counselor	8
Faculty member	4
Admissions & Records Officer	3
Other	19

Table II.26. Distribution of Tenure of Matriculation Coordinators

Length of Tenure	Percentage of Reported
Less than 3 Months	3%
3-6 Months	16
7-12 Months	16
13-18 Months	29
19-24 Months	24
25 Months or more	12

Table II.27. Percentage Time Devoted to Matriculation by Matriculation Coordinators

Percentage Time Devoted	Percentage Reported
Less than 10 Percent	10%
11-25 Percent	29
26-35 Percent	11
36-50 Percent	19
51-75 Percent	16
76-99 Percent	2
100 Percent	13

Discussions with matriculation coordinators during the telephone survey and site visits substantiate the importance of the Board of Governors' recommendation that coordination responsibility for matriculation be assigned to a single person with a span of authority that encompasses all areas involved. Coordinators who are in non-administrative positions, including counselors and faculty, report that coordination of the program is hampered by the limitations of their authority and ability to gain the cooperation of the different parties involved.

State Chancellor's Office staff expressed two additional interests related to the coordination of matriculation: 1) the nature and effectiveness of inter-district coordination in multi-college districts; and 2) the level of involvement of different sectors of the individual colleges in the planning and implementation of the program, including in particular, faculty and the "instructional side of the house." These issues were explored through open-ended questions during the course of the telephone survey of coordinators.

Among the schools in multi-college districts, 16 percent reported that there had been no formal efforts to coordinate program implementation within their districts. Among the remaining schools, 42 percent of the coordinators perceived that program implementation had been well coordinated within their districts, 35 percent felt that coordination had been adequate; and 23 percent reported that coordination was poor. The major complaints regarding intra-district coordination related primarily to a perceived lack of support for matriculation from centralized district data processing operations and a lack of communication among the colleges within a district.

Regarding the level of involvement of different sectors of the college in the planning and implementation of matriculation, all colleges reported that faculty and staff from different areas had been represented on the college's matriculation planning committee. When questioned further regarding the actual level of participation of faculty, however, 41 percent of the coordinators indicated that the planning and implementation of the program had involved primarily student services units and staff. Twenty-one percent of the coordinators however, perceived, that true campus wide involvement had been achieved in these programs. The remaining colleges reported that specific faculty or departments had been involved in the program, but their involvement was restricted to certain components, primarily assessment and faculty advisement.

During the course of the site visits, ETI staff interviewed the Dean of Instruction, the Chair of the Academic Senate and other faculty representatives at each college to determine, among other things, their perceptions of the extent to which they had been involved in matriculation. These interviews revealed that faculty participation in the program had varied widely. At one college the entire faculty voted on the plan for matriculation and rejected the first draft which was subsequently revised and resubmitted for faculty approval. At another college, however, faculty representatives reported that the matriculation planning committee met

infrequently, and that the plan for the program was developed primarily by the Dean of Student Services with little input from faculty outside student services. The remainder of the site visit colleges fell in between these two extremes, although overall the interview responses would suggest that faculty took a limited role in planning at most sites, with the exception of the involvement of individual faculty in assessment. This restricted involvement did not appear to be the result of the lack of opportunity to participate, but rather a function of limited interest or limited knowledge of the program and its' potential impacts.

At most schools, a few individual members of the English and math departments were actively involved in the development and implementation of the assessment component, however. Faculty generally selected the instruments to be used in math and language assessment, and established score prerequisites for different courses. Faculty also continued to actively monitor assessment outcomes and were involved in validation studies of instruments and cut-off scores.

Despite a lack of extensive involvement, the site visit interviews indicated that the majority of faculty were generally supportive of the concept of matriculation. The only potentially significant pocket of resistance was reported to exist among vocational/technical faculty, who expressed concern that the matriculation process and assessment, in particular, might prove to be intimidating to vocational education students. At one college, declines in vocational enrollments had fueled these concerns. At another site, however, vocational faculty had begun to take a much more active interest in the program as a result of their concerns. At this college, a significant percentage of incoming students were identified as requiring remediation through assessment, but significant numbers of these students were unable to enroll in remedial courses because of limited capacity. The vocational faculty were seeking ways to make these students aware of vocational courses in which they would be eligible to enroll through the orientation and counseling components of matriculation.

ADMISSIONS

Admissions Services Prior to Matriculation

The minimum requirements for the admissions component specified in the Board of Governors' plan include the directive that the admissions component will assure that information about new students is obtained, stored and is capable of being utilized to assist the individual student, the institution and the Chancellor's Office in fulfilling the purpose, goals and accountability expectations of this plan. This initial requirement is a broad charge, requiring in practical terms the development and maintenance of a fairly sophisticated student information system. To get some measure of the colleges' capabilities in this regard prior to matriculation, coordinators were asked to identify the extent to which data collected through the admissions process was computerized. Table II.28 summarizes the results. Over half of the schools reported that admissions data were totally computerized, or computerized to a major extent. However, 30 percent of the colleges reported that the data were computerized only to a minor extent or not at all.

Table II.28. Matriculation Coordinators' Perceptions of the Extent to Which Admissions Data were Computerized Prior to Matriculation

Rating	Percentage Responding
Not at all	7%
To a minor extent	22
To a moderate extent	17
To major extent	24
Totally	30

To provide a measure of accessibility of data collected during the admissions process, coordinators were also asked who utilized the data prior to 1987-88. Table II.29 shows that the data were accessed most frequently by admissions office staff, counselors and assessment personnel.

Table II.29. Categories of College Staff Utilizing Admissions Data Prior to Matriculation

Categories of Staff	Percentage of Colleges Reporting
Admissions office staff	93%
Counselors	44
Assessment personnel	32
Institutional researcher	18
Faculty	7

These data would suggest that approximately one-half of the colleges had the existing capacity to meet the Board of Governors' requirement for the storage and utilization of student data. However, subsequent discussions with college staff during the course of the site visits indicated that although many colleges were capable of collecting and storing the data, access was limited. The emphasis in past data collection activities had been upon reporting, as opposed to providing extensive access to the data for purposes of review, follow-up and analysis. Provision of such capabilities will require the expansion and modification of existing systems.

The Board of Governors' plan includes one additional recommendation for admissions that must be examined relative to colleges' admissions practices prior to 1987-88. That is the recommendation that colleges encourage early application by students. The survey of matriculation coordinators indicates that 64 percent of the colleges were encouraging early admissions prior to matriculation, although these efforts were generally limited to presentations at area high schools. A smaller number of schools reported that they encouraged early application by early distribution of course catalogues and/or radio, newspaper and television advertisements. As matriculation is implemented, we would expect such efforts to become more widespread.

Activities Completed by the Colleges in Implementing the Admissions Component in 1987-88

More than any of the other components, the Board of Governors' recommendations for admissions had specific implications for the types of

activities that colleges needed to complete during 1987-88. The most immediate requirement specified in the plan is that exemption of students from participation in orientation, assessment and counseling be determined by local boards of trustees. In addition to the requirement that exemption criteria be defined, the Board of Governors' plan for admissions includes recommendations regarding the criteria which should be utilized, including that: 1) at a minimum, districts/colleges consider exempting students who have completed an associate degree or higher, provide scores from recently taken skills tests comparable to those used by the colleges, and/or seek to enroll in courses not dependent upon skill prerequisites; and 2) districts/colleges generally not exempt students who enroll only in evening classes, enroll in fewer than some number of units, do not wish to participate, are undecided about their goals, or do not intend to earn a degree or certificate.

A listing of exemption criteria selected by the colleges is presented in Appendix 1 of this report. A review of the exemption criteria proposed by the colleges reveals that the great majority of colleges have complied with the recommendation of exempting students who had previously completed a college degree (92 percent of colleges). However, compliance with other recommendations has been less consistent. Nineteen percent of the colleges have proposed to exempt students based on the number of units they intend to take, and less than half are exempting students taking courses not dependent upon skill prerequisites. Additionally, over one-third of the colleges have proposed to exempt students taking courses to upgrade occupational skills.

Cutbacks and delays in funding altered the application of exemption criteria in 1987-88 in 51 percent of the colleges. Many colleges chose to provide matriculation services on a voluntary basis only, while others restricted the population which received services. (See following discussion of "Barriers to Implementation".) These modifications in the application of exemption criteria could have a major impact on program outcomes. During subsequent years of the evaluation, ETI will continue to track the exemption criteria employed by the colleges, and the impact such criteria have upon the success of exempt and non-exempt students.

The Board of Governors also recommend that: 1) colleges utilize the application for admissions as a source of student data for meeting local and statewide data requirements; and 2) data collected during the application process include information for determining a student's exemption status, need for additional assessment, educational goals, extracurricular interests, and transcripts of prior work. As indicated in Table II.30, 59 percent of the colleges reported that they revised their

application form in 1987-88 to capture such data. Many of the remaining colleges reported that they delayed revision of their application, pending the funding and implementation of the statewide MIS. In addition, 82 percent of the colleges reported that they were able to identify exempt and non-exempt students in 1987-88 which substantiates that they had been collecting or initiated collecting of the data necessary to perform this function.

Table II.30. Activities Completed by the Colleges in Implementing the Admissions Component in 1987-88

Activity	Percentage of Colleges Responding
Exempt and non-exempt students identified	82%
Application revised to include data elements necessary for matriculation and/or state reporting	59
Additional admissions staff hired	37
Early application program initiated	29
Transcript requirement implemented	25

During the course of the site visits, ETI collected some additional information on the implementation of the admissions component. Only two of the 15 colleges had implemented the use of a new application to collect all the data necessary for matriculation. Eight of the colleges are now in the process of revising their applications, but utilization of the new application is pending due to changes required in data processing procedures or uncertainty regarding the data requirements and implementation of the statewide MIS. The remaining colleges had not initiated revision of their applications primarily because they were waiting for implementation of the statewide MIS and the potential development of a uniform statewide application. These colleges reported that they did not want to commit the effort required to change forms and computerized data bases if the State was going to mandate the usage of a uniform application which would subsequently require more changes.

When asked to evaluate the status of their current student information systems relative to the proposed statewide MIS, half of the colleges felt their systems would require only minor modification for implementation. The remaining colleges indicated that major changes would be required in existing data processing operations, including changes in hardware and software. The majority of these colleges indicated, however, that with adequate funding they could provide the student information required under the MIS by Fall, 1990.

With respect to early admissions activities, 10 of the 15 site visits school indicated that they had encouraged early admissions prior to the implementation of matriculation, primarily through visits to area high schools in which students were given the opportunity to complete an application, and in some instances to undergo assessment. Three of the schools also reported other types of prior early admissions activities, including advertisements in newspapers and on radio encouraging early application and the widespread distribution of the college schedule of classes throughout the community several weeks prior to the start of the term.

The site visits also revealed that colleges took different tacks in the utilization of matriculation funds for admissions. Staff at several of the colleges reported that they were confused about the appropriate use of matriculation funds for admissions, and what proportion of admissions functions could be charged to matriculation. At one college, the Director of Admissions reported that other than using a portion of the data processing allocation to purchase additional micro-computers and printers to support the additional data entry required for matriculation, no operating funds from matriculation were allocated to admissions by the college. Another college had used the money to hire an additional clerk to enable the admissions office to expand its service hours and to provide the clerical support necessary for tracking whether or not students received matriculation services. At still another college, matriculation funds had been used to hire replacement staff for two clerical positions which had existed prior to the implementation of matriculation and had been vacated through retirement.

Table II.31 details the data processing support activities related to admissions that the colleges completed last year. The most prevalent effort was the purchase or enhancement of existing data processing systems to support admissions activities (58 percent of colleges).

Table II.31. Activities Completed by the Colleges in Implementing Data Processing Support of the Admissions Component in 1987-88

Activity	Percentage of Colleges Responding
Data processing equipment purchases/ enhanced to support admissions activities	58%
Student information system designed	19
Computerized method for determining students' exemption status developed	17
No data processing related activities completed	20

BARRIERS TO PROGRAM IMPLEMENTATION

In the 1987-88 Matriculation Plan Progress Reports submitted to the Chancellor's Office, the major barriers to program implementation identified by the colleges included cutbacks in the amount of state funding for matriculation and delays in the receipt of the funds from the state. Forty-seven percent of the schools reported that the cutback in funds had proven to be a barrier, while 25 percent identified delays in the receipt of funds as a problem.

In order to more fully explore the impact of reduced/delayed funding upon the implementation of matriculation in 1987-88, the matriculation coordinators were asked a series of questions about the specific impacts of funding upon their program last year. **Ninety-two percent of the coordinators surveyed indicated that funding had impacted program implementation at their college in 1987-88, primarily by prohibiting the hiring of new staff required for program implementation and/or decreasing the numbers of students the college was able to serve.** Fifty-seven percent of the colleges reported that they were unable to hire all or some of the additional staff they had planned to hire; fifty-one percent of the colleges reported that they reduced the number of students served.

Coordinators were asked if cutbacks and delays had impacted the implementation of all components of the program to the same extent, or whether particular components had been impacted more strongly. Table II.32 summarizes the responses of college staff. Counseling/ advisement was the component most strongly affected, followed by student follow-up. The impact in counseling relates to the fact that many colleges had to postpone or cutback in terms of the hiring of additional counselors, the primary staff category in which the colleges had intended to hire additional personnel.

Table II.32. Components of Matriculation Most Strongly Impacted by Cutbacks and/or Delays in State Funding

Component	Percentage of Colleges Responding
Counseling/Advisement	43%
Student follow-up	37
Research and evaluation	16
Assessment	14
Orientation	10
All components affected equally	12

Colleges which reported that they reduced the number of students served were asked to identify the criteria they utilized in determining which students should be given preference for matriculation services. Thirty-seven percent of the colleges reported that the number of units in which the student was enrolled was the primary criterion, with students enrolled in six or more units as the most common criterion. Additionally, twenty-seven percent of the colleges made the process strictly voluntary, and services were provided on a first-come, first-served basis. The remaining colleges used a range of criteria, including giving preference to day students, students with declared majors, students enrolling in English or math courses, and special needs students.

Depending upon the extent to which colleges were able to record which students received matriculation services in 1987-88, and the extent to which they are able to report additional data about these students and their academic progress, the exclusion of eligible students from the delivery of matriculation services in 1987-88 will create a comparison group for subsequent analysis of long term program outcomes. In addition, however, the fact that eligible students were excluded in the delivery of services during the initial year of the program will need to be considered in the interpretation of the final summative evaluation.

In addition to colleges scaling back program implementation and service delivery, 13 percent of the colleges reported that funding problems had led to a **total delay** in the implementation of their program. These colleges reported that they focused upon planning matriculation activities in 1987-88, as opposed to implementing the program because of uncertainties regarding the amount and timing of funding.

The site visits also revealed more qualitative impacts the cutbacks and delays in funding had upon the implementation of matriculation at the local level. Staff at the majority of the colleges perceived that the cutbacks had made the administration, faculty, staff and local board at their institution more cautious about the level of resources and effort committed to matriculation. In several instances, administrations and boards had refused to approve the hiring of additional counseling or admissions staff for matriculation because of the fear that future funding would be inadequate or nonexistent. Several staff described wide spread "cynicism about the permanency of the program" on their campuses, resulting from the lack of full funding. In addition, some staff, including college presidents, expressed resentment about the level of effort which was put into planning for matriculation, and the subsequent cutback in funding which not only meant that the colleges could not do what they originally planned, but also had to expend a good deal of additional effort to develop revised plans which would be feasible given the budget limitations.

Staff at the majority of the colleges indicated that if future funding for matriculation continued to be reduced, then their programs were in jeopardy. Most felt that they would not be able to deliver the program in a manner which matched the intent of the legislation and the Board of Governor's plan given current funding levels. They also expressed concern that the State Chancellor's Office and the legislature might hold unrealistic expectations regarding the outcomes of matriculation, particularly in view of the funding reductions and delays.

Beyond funding, management information system issues were the second major category of barriers impeding the implementation of matriculation at the local colleges. In ETI's initial review of the colleges' 1987-88 progress reports on matriculation, we found that over one-third (37 percent) of the colleges reported that limitations in their existing data processing systems had interfered with program implementation. In addition, 28 percent of the colleges reported that the defunding of the statewide MIS had delayed the progress of their local programs.

The outcomes of the telephone survey of matriculation coordinators suggested that data processing problems were more of an issue in multi-college districts than single college districts. Several of the coordinators in multi-college districts, in fact, were unable to report on data processing support activities because those tasks were being handled at the district level, and they were unaware of what action had taken place. In many cases, coordinators remarked that district control of the utilization of the matriculation data processing funds was proving frustrating to individual colleges. These coordinators complained that the lack of data processing support was limiting their ability to implement matriculation in the manner they had planned.

Additional information about how management information system issues were impacting program implementation was gathered during the course of the site visits. At all colleges, staff made reference to some way in which the limitations of existing data processing systems had impacted program implementation. Several colleges reported that the existing mainframe systems could not support the on-line processing and long term storage requirements associated with matriculation. The Director of Admissions at one college indicated that just to generate a list of non-exempt students based upon the number of units in which students were enrolled would be a "major production that would take weeks of time." This college is in the process of purchasing a new mainframe computer along with software to support matriculation which should be operational by July, 1989, but the further implementation of matriculation is in many ways deadlocked until that time. In the meantime, the college has no systematic method of identifying non-exempt students and which of these students receive matriculation services.

During the course of the site visits, ETI interviewed each of the Chief Information System Officers responsible for data processing operations at the site visit colleges. With the exception of two colleges, all the data processing managers indicated that their initial ability to provide the data processing support for matriculation prior to the receipt of the one-time data processing allocation was limited. For many of these schools,

matriculation requires a major expansion of the college's (or district's) mainframe computer, along with the installation of micro-computers and computer terminals in various student services units. In all these cases, the managers reported that the original allocation for data processing costs received by the college (or district) was inadequate to fund the changes required.

In addition to the inadequacy of funding, the Chief Information Systems officers reported that the defunding of the statewide MIS was a major barrier in the development of computer support for matriculation. The MIS was perceived to be the logical mechanism for the collection and reporting of data required for matriculation, and the postponement of its implementation has left the colleges and districts uncertain of how to proceed. The impact of defunding of the system on the revision of colleges' applications and admissions procedures has already been discussed. In addition, however, the data processing managers indicated that they were uncertain what data they should now be collecting for matriculation, and in some instances felt they were perhaps collecting too much information.

IMPACTS OF MATRICULATION UPON THE COLLEGES

During the course of the survey of matriculation coordinators and study site visits, ETI also explored college staff perceptions of the impacts of matriculation upon their campuses and students. Only a limited number of program outcomes were discussed. The 1987-88 program year was the first year in the implementation of the program and the colleges were involved primarily in planning how to provide program services and expanding the delivery of orientation, assessment and counseling services to additional numbers of students. In addition to funding cuts, many colleges did not receive matriculation funding until late Spring, 1988, which limited the number of staff which could be hired to support matriculation and restricted the level of services provided. Indeed, some colleges postponed actual implementation of the program until 1988-89. Given these conditions, a detailed analysis of program outcomes would be premature at this time.

Some impacts that the implementation of matriculation is having upon the colleges are already apparent, however. Perhaps the most significant effect is the identification of an extensive need for remediation among new community college students. During the course of the telephone survey of matriculation coordinators, more than 30 percent indicated that assessment

had identified a greater need for remediation at their colleges than had previously been recognized. During the course of the site visits, ETI was told at one college that 85 percent of incoming students were found to require remediation in reading skills, and that approximately 1400 students were on the waiting list for remedial English courses. Other site visits colleges reported less dramatic figures in terms of the need for remediation, but the majority reported that their remedial programs had to be expanded, or they were planning a future expansion, to accommodate the increased need identified through matriculation.

The degree of expansion required in the number of remedial course offerings at the site visit schools ranged as high as a three-fold increase. Although these expansion efforts generally enabled the colleges to serve students' needs for remediation, they strained the facility and staffing resources of the institutions. At one college, the Chair of the Math Department reported that he had 15 sections of remedial math scheduled for which he had no classroom space. At other colleges, department chairs complained that they had to hire additional part-time faculty to teach the additional sections of remedial courses required, an action they viewed as contrary to the intent of AB 1725 and detrimental to their programs because part-time faculty were perceived to be "less committed" and "less involved". At another site visit college where full-time staff were hired to teach remedial courses, the Dean of Instruction reported that these faculty were hired "at the expense of other departments" which forfeited faculty openings because only a limited number of new faculty could be hired campus-wide. Other colleges reported that the need for faculty with remedial instruction skills would strongly impact future hiring decisions in all departments.

At some site visit colleges, staff also reported that the identification of an increased need for remediation had generated some resistance among faculty. At these schools, faculty feared that the college might become a "remedial institution", and faculty would no longer be teaching college level courses. Other faculty, however, praised matriculation for providing substantive evidence of the extent of the need for remediation among students and indicated this was a challenge to which the colleges must respond.

The staff and faculty interviewed also perceived that the increased demand for remediation was impacting students. At those colleges where the demand for remediation could not be met, faculty and administrators reported that many students were "shut-out" of the college since they could not enroll in the other courses in which they were interested without having completed their remedial coursework. In areas where other colleges were

located within a reasonable distance, the perception was that these students then went elsewhere. However, none of the colleges could provide data to substantiate what happened to those students who were not able to enroll in required remedial coursework. Hopefully, these students can be tracked in subsequent years of the evaluation.

Staff at one college perceived that assessment and remediation were having especially negative impacts upon minority students. The Dean of Instruction reported that fewer Black students were enrolling in remedial courses than were identified as requiring remediation. Other staff at the school commented that many minority students did "not want to be seen taking dummy classes." There was widespread concern among the faculty that testing was contrary to the open door policy, and could potentially be serving as a barrier to minority students.

On a broader level, students requiring English as a Second Language (ESL) instruction were also identified as being strongly affected by the assessment and placement process at several of the site visit colleges. ESL students were perceived to be more intimidated by the assessment process than other students, and staff believed that they required specialized orientation, assessment and counseling services. In some cases, the colleges were beginning to provide such specialized attention but other colleges lacked the resources to do so. In addition, most of the site visit colleges reported difficulty in providing adequate levels of ESL instruction to meet the demand identified through matriculation. One college reported that over the course of the year, approximately 500 ESL students could not be accommodated in ESL courses.

During the course of subsequent years of the evaluation, ETI proposes to collect additional data on the impact of matriculation upon remediation in the colleges, including numbers of students identified as requiring remediation, number of students enrolling in remedial courses, number of remedial courses offered, number of students who cannot be accommodated because classes are full, etc. In addition, ETI will ultimately be able to track the success of students undergoing remediation once the statewide MIS has been implemented.

The telephone survey of matriculation coordinators also asked college staff if they had observed any impacts of matriculation upon student success and access. In relation to student success, 32 percent of the coordinators responded that it was too early to tell if and how matriculation was having an impact. However, 17 percent of the coordinators reported that they perceived an increase in retention, although that increase had not been substantiated by actual analysis of data except in a minor number of

cases. During the course of the site visits, one college was able to report the results of a comparative study of a group of students who underwent the initial phase of matriculation with another group of non-exempt students who "slipped through the

cracks" and did not participate in the matriculation process. Matriculating students were found to have a higher retention rate (30 percent higher) than those students who did not participate. These results are encouraging, but a definitive evaluation of the program will require data from a much greater number of schools.

Table II.33 identifies other ways in which the matriculation coordinators perceived that matriculation has impacted student success. The notion that matriculation has improved students' planning was reiterated several times during the course of the site visits. College staff commented that students "don't seem to be foundering as much," and that matriculation "has taken away students' right to fail." During subsequent years of the evaluation, ETI proposes to examine these perceptions through analysis of students' retention rates, course completion rates and course performance.

Table II.33. Impacts of Matriculation Upon Student Success As Perceived by Matriculation Coordinators

Impact Coordinators	Percentage of Identifying
Too early to evaluate	36%
Improved student direction/ planning	21
Increased retention	17
Increased awareness among students of support services available to them	16
Increased student performance in the classroom	6

The impact of matriculation upon student access is a major concern of the Legislature, the State Chancellor's Office and ETI's evaluation. Concerns that matriculation may serve as a barrier to students' enrollment in the colleges have been discussed throughout this report. During the course of the telephone survey of matriculation coordinators we found, however, that with one exception, none of the colleges experienced a decrease in enrollments or a major shift in demographic patterns of enrollment in 1987-88. Most colleges, in fact, reported increased enrollments for the program year. These data are of course, very preliminary and we will continue to track enrollment data during the remainder of the evaluation.

We did identify one college during the survey and site visits that reported a decrease in enrollments that college staff perceived was related to the implementation of matriculation. This college **required** students to undergo orientation, assessment and counseling or they were prohibited from registering. In addition, the college adopted a policy of mandatory course placement on the basis of assessment outcomes. The college has experienced a 12 percent decrease in enrollments which some college and district staff are attributing to the mandatory nature of the matriculation program. Another college in the district, which has not made the matriculation process mandatory, has experienced an increase in enrollments. Some staff at the first college contend that students who do not want to undergo the matriculation process have migrated to this other school. Again, this single case does not provide enough substantive information about the impact of matriculation upon access, but enrollments at this and other colleges will continue to be monitored in the evaluation.

During the telephone survey of coordinators, college staff also identified a number of other qualitative impacts that matriculation has had upon the colleges, as summarized in Table II.34. As indicated, an increase in focus upon student services and recognition of the importance of these services was the most frequently mentioned outcome. This theme was heard repeatedly during the course of the site visits, particularly in interviews with Chief Student Service Officers and other student services staff. Matriculation was identified as the catalyst for a "rethinking of student services", and the origin of a new sense of accountability among student services staff. One Dean of Student Services remarked that matriculation has helped student services staff to establish "professional standards for themselves," and provided a renewed sense of purpose for their functions.

Table II.34. Other Impacts of Matriculation Upon the Colleges Identified by Matriculation Coordinators

Impact	Percentage of Coordinators Identifying
Increased focus upon/ recognition of student services	19%
Increased communication within student services	14
Increased focus upon student success	10
Improvement in assessment practices	8
Increased workload for staff	8
Increased cooperation between instruction and student services	6

Increased communication among student services units was also identified as a positive outcome of matriculation at many of the site visit colleges. Chief Student Services Officers frequently remarked that matriculation forces communication and coordination among different student service functions, and that implementation of the program had led to changes in organizational structure and reporting relationships. In addition, matriculation was seen as contributing to better communications between student services and instruction at several site visits colleges. Staff and faculty remarked that the program had made faculty more aware of student service functions, and the planning process had opened new lines of communication between the two groups.

III. SURVEYS OF STUDENTS AND FACULTY

In order to obtain additional data on the impacts of matriculation on the colleges and students, ETI conducted written surveys of both faculty and students. Originally, ETI proposed to conduct surveys at all fifteen site visit institutions. Six of the colleges refused to participate in this component of the evaluation, however, either because they were planning to conduct surveys of their own or because they did not want to commit the resources necessary to coordinate the administration of the surveys on their campuses. Of the remaining nine colleges which did agree to participate, three subsequently failed to collect survey data in adequate time to be included in this report.

The student and faculty survey instruments were developed by ETI and reviewed by the Matriculation Evaluation Advisory Committee and the Regional Matriculation Coordinators prior to field testing. Copies of the survey instruments are included in Appendix 2 of this report. The survey instruments were sent to the individual colleges along with instructions for their administration and collection. In exchange for their participation in the survey process, each individual college received a confidential report on their own survey responses. In this report, the survey results are discussed on a statewide basis only.

STUDENT SURVEY

Sample of Respondents

A total of 1022 completed student surveys were received from five colleges. Table III.1 presents a the breakdown of the respondent group by age and by ethnicity. As indicated the largest percentage (44 percent) of respondents were White students who were less than 25 years old. Fifty-seven percent of the respondents were female, and 43 percent male.

The survey respondents were primarily full-time day students. The majority of students (61%) were carrying a load of 12 or more units, while approximately one-third of the respondents were taking between 6 and 12 units. Only eight percent of the respondents reported they were taking less than six units.

Table III.1. Age and Ethnicity of Student Survey Respondents

	Ethnicity						
Age	Asian	Black	Hispanic	Native American	White	Other	Total
17-19	1%	4%	18%	3%	2%	*%	28%
20-22	3	3	19	3	4	*	32
23-25	1	1	7	1	1	*	11
26-30	1	2	7	1	1	*	12
31-40	*	1	7	1	2	--	11
41-50	1	*	3	*	*	*	4
50+	--	--	*	*	*	--	*
TOTAL	7%	11%	61%	9%	10%	*%	98%

* Less than 1%

Although the majority of students were carrying a full-time course load, most (65%) worked. Table III.2 indicates the number of hours per week students reported working.

Table III.2. Number of Hours Worked Per Week by Students Surveyed

Number of Hours Worked	Percentage of Students Reporting
Less than 10	5%
10 to 20	36
21 to 30	30
30-39	24
40 or more	5

The majority of respondents also indicated they were doing relatively well in school. Table III.3 presents the grades students reported they had received in their coursework.

Table III.3. Grades Students Reported Receiving in Their Coursework

Grades Received Reporting	Percentage of Students
Mostly A's	17%
A's and B's	32
Mostly B's	16
B's and C's	23
Mostly C's	9
C's and D's	3
D's and F's	Less than 1

Given the age and ethnicity of respondents, the survey sample was not truly representative of the statewide population of community college students since the full population includes higher percentages of minority and older students. This limitation of the data impacts the extent to which any interpretation of the survey outcomes can be generalized to the state as a whole. The survey did provide some signficant findings, however, which we feel warrant discussion and attention.

We believe that the characteristics of the survey sample were primarily a function of the student demographics of the colleges which elected to participate in this component of the study. In future years of the evaluation, we anticipate that we will have broader participation among the colleges, and a respondent sample more representative of the statewide student population. We recommend that the Board of Governors and the Chancellor's Office actively encourage the colleges' participation in the evaluation to the greatest extent possible in order to achieve this objective.

Students' Participation in the Matriculation Process

Students were asked to indicate whether or not they had participated in the various components of matriculation. Table III.4 presents the numbers of survey respondents indicating they had received the three initial primary components of the process-- orientation, assessment and counseling.

Table III.4. Percentage of Survey Respondents Reporting They Had Participated in Specific Components of Matriculation

Component	Percentage of Students Reporting Participation
Orientation	46%
Assessment	59
Counseling	76

Students who did participate in these activities were also asked to a series of questions to determine how useful each service was to them. Overall, the majority of students were positive in their evaluations:

- 83 percent of those participating in orientation sessions found them helpful;
- 80 percent of those undergoing assessment reported that they did use their assessment results in helping them to select courses;
- 70 percent of those undergoing assessment felt that the process helped them to select appropriate courses; and

- 83 percent of those who had met with a counselor felt that counseling had helped them to clarify their educational goals;

These responses indicated that **the majority of students participating in the matriculation process felt it was beneficial**. This finding should be encouraging to those college staff who expressed concerns during the course of the evaluation that students would resent the process.

Further analysis of the survey respones revealed that a significantly higher proportion of Black students (96%) found orientation sessions to be helpful, while Native Americans (74%) were slightly less likely than other student groups to find this service useful. These differences were not found to be a function of the quality of the orientation presentation at the different campuses, since an analysis of students' evaluations by college showed no significant variation. These findings would suggest then, that orientation sessions are particularly useful for Black students, a factor colleges may wish to consider in structuring their orientation programs. No other significant differences emerged in students' evaluations of the services they received.

Outcomes of Matricualtion

The principal goal of the matriculation program is to assist students in defining their educational objectives, and to direct them toward the educational programs and support services which will enable them to achieve these objectives. In order to determine if the matriculation process was proving effective in this regard, students were asked a series of questions regarding: 1) their original educational goals at the time they applied to college; 2) the factors associated with any changes in these goals; 3) barriers that had been encountered in pursuing these goals; 4) awareness and use of various support services; 5) satisfaction with support services received; and 6) success in programs/courses;.

Students' Goals

As discussed above, the great majority of those students who had attended counseling reported that this experience had helped them. This statistic substantiates that matriculation has been successful in helping students to define their goals. In order to explore this issue in more depth, however, students were asked if they had changed their goals since enrolling in college and what factors had influenced their decisions. Almost half (45%) of the students responding to the survey reported that they had changed their educational goal since enrolling at their college. Table III.5 presents the reasons these students reported for making a change.

Table III.5. Reasons for Changing Educational Goals Reported by Students

Reason	Percentage of Students Reporting
Enjoyed Different Courses	60%
Potential Job Opportunities	56
Discussions with Family and Friends	53
Job responsiblities	28
Grades in School	27
Discussions with Counselors	26
Discussions with Instructors	22
Financial Situtation	19
Family Responsibilities	14
Assessment Results	7
Discussions with Special Program Staff	7
Health Problems	4

This pattern of responses has some interesting implications related to the delivery and impact of matriculation services. The single most important factor impacting students' decisions was experience in their coursework. Students simply found that they liked different types of courses than those related to their original educational objective, and this experience led to a change in goals.

We doubt that this initial period of exploration in the educational process can be circumvented by the matriculation process. This assertion has major implications for the delivery of counseling services and the development of an individual educational plan, as required by the Board of Governors. The development of a plan prior to the completion of at least one semester or coursework would not seem to be efficient, since there is a high probability that many students are going to change their objectives on the basis of their experiences in school. During the course of the study site visits, however, we found that several colleges had attempted to require that each new student meet with a counselor prior to enrolling in classes, a process which often strained counseling resources. The survey

data suggest that rather than enforce such a requirement, these colleges should focus upon orienting and assessing new students during their initial term in school, and postphone counseling and the development of an educational plan until later.

The survey data also highlight that the three major factors that influence students' choice of goals (experiences in coursework, job opportunities, and discussions with family and friends) are not elements that can be easily impacted by college staff. As just suggested, students must be given some time to explore different programs and courses, and the matriculation program cannot circumvent this process. At the same time, counselors cannot mediate discussions with family and friends. They can provide information about potential job opportunities at an early stage to assist students in evaluating their options, but students will still require time to investigate and explore these alternatives.

The pattern of factors students reported affecting their educational choices suggests, then, that students must be allowed at least a limited period of time to define their educational goals. This time factor must be considered in evaluating the impact of matriculation. It would not be reasonable to expect that as the result of matriculation the majority of students will immediately define and quickly attain specific educational objectives. A more likely outcome to expect in future years would be a decrease in the number of students who fail to decide upon a goal within a reasonable period of time, or who show eratic progress in the attainment of their stated goal.

Barriers to Achievement of Educational Goals

In addition to helping students define their educational goals, matriculation is intended to assist them in achieving these objectives. In order to explore the impact of matriculation in this regards, students were asked if they had encountered any barriers which limited the attainment of their goals. Their responses are summarized in Table III.6.

Table III.6. Barriers Encountered by Students

Barrier Reporting	Percentage of Students
Times Classes Were Offered	52%
Confusion Over Which courses to Take	40
Desired Courses Were Full	38
Lack of Classes in Area of Interest	29
Financial Problems	24
Job Responsibilities	22
Uncertainty About Skills	19
Math Skills	16
Not Knowing How to Study	16
Feelings of Loneliness Isolation	16
Transportation/Parking	15
Reading/Writing Skills	12
Cancelled Classes	11
Poor Grades	10
Conflicts with Teachers	9
Childcare Problems	7
Physical or Other Disability	4

The three major barriers identified by students were all related to their ability to select and enroll in courses. Most significantly, **40 percent of those surveyed reported they were confused regarding which courses to take. Furthermore a comparison of the responses of those students whc participated in the matriculation process with those that did not revealed that participation did not reduce students' confusion regarding course selection.** Indeed, with one exception receiving matriculation services appeared to have no impact on the barriers students perceived or confronted. The one exception was that a signficantly lower percentage of students who received counseling reported they were uncertain about their skills.

These data suggest that colleges need to emphasize course selection in both orientation and counseling. Some colleges do have students complete a first term program during the course of group orientation or counseling sessions. The survey data suggest this practice would be beneficial to students, and we would recommend that all colleges consider incorporating it into their intial matriculation process. Additionally, students would probably benefit from having counselors, faculty or peer advisors readily available during the registration process. These staff help students who find they cannot not take the courses they had planned to identify appropriate alternatives.

In addition to examining differences between students who participated in matriculation and those which did not, analyses were conducted to determine if other factors were related to the barriers students confronted. These analyses revealed the following:

- Students less than 22 years old were significantly more likely than older students to be confused regarding which courses they should take and to encounter problems in enrolling in the classes they wanted at convenient times;

- A signficantly higher percentage of students aged 26 to 40 reported childcare problems, and also indicated that family responsibilities interferred with their education. Women were also significantly more likely than men to report problems in these areas.

- Students less than 22 years old were signficantly more likely than older students to report conflicts with their instructors;

- Minority students were significantly more likely than White students to report problems with their reading, writing and math skills. Asian (32%) and Hispanic (20%) students were the most likely to report problems with reading and writing, while Blacks (21%) and Native Americans (20%) were most likely to report problems with math.

- Hispanics and men were the most likely to report that their jobs interfered with attainment of their educational goals.

These survey results substantiate common assumptions about the various student subgroups. As an example, older students returning to college are generally considered to be more certain of their objectives and know which courses they want to take. Although the survey results do not contain any startling findings in this sense, they do have implications for the delivery of matriculation services, particularly if resources are limited. If matriculation funding continues to be restricted, the data support the notion that younger, first time college students should be given priority for orientation and counseling services. We would recommend that colleges adopt these more deliberate policies regarding the delivery of services over the approach taken by many colleges of simply making the program voluntary and serving students on a first come, first serve basis until funds are exhausted.

As a final observation, the problems students reported in being able to enroll in their desired courses relates to another outcome of matriculation established in the Board of Governor's plan: Matriculation is intended to increase the community colleges' institutional responsiveness to the needs of students. The provision of adequate access to course offerings would be an important indicator of institutional responsiveness. ETI's site visits indicated, however, that the increased need for remedial courseworks identified through the assessment component of the program has strained the resources of many schools. The outcomes of the student survey also indicated that a significant proportion of students were not able to enroll in the courses they desired or confronted schedule conflicts.

In addressing these issues, staff at several site visit colleges emphasized matriculation funds cannot be utilized to hire the additional faculty or expand exisiting facilities to meet students' needs. If matriculation is to have the desired impacts upon the colleges and students, however, the manner in which the colleges will respond to students' needs and interests in relation to specific courses will need to be considered at both the state and local levels. ETI will also continue to examine this issue in depth during the coming year's evaluation.

Students' Grades

The attainment of satisfactory grades is another important measure of the success of matriculation. Theoretically, the matriculation process should direct students toward courses and programs for which they are prepared to succeed, and should provide them with the support services necessary to achieve success. Analysis of the student survey data does not substantiate that matriculation has yet been successful in this regard, however.

Survey respondents were asked to report their grades. As shown in Table III.7, students who participated in assessment were not consistently more successful in their coursework than students who did not undergo testing. **Indeed, students who did not participate in assessment were more likely to receive higher grades in their selected courses than those who did not.** Similar patterns were observed in examining differences in the grades of students who had participated in orientation and counseling and those who had not.

These findings must be interpreted cautiously, however, given that matriculation was in its initial phase of implementation at the colleges participating in the survey. During the course of site visits to these colleges, we found that most could not require that all students undergo assessment and the other components because no mechanism for enforcing participation existed. Potentially, students with a prior history of academic success were more confident regarding their abilities and by-passed the assessment process and other matriculation activities.

Several studies at local colleges have indicated that the best predictor of academic success is a students' prior grade point average. Until we are able to examine additional data on students' prior academic performance we can make no definitive statements about the impact of matriculation upon student grades. Ultimately, the Statewide MIS will provide the data necessary for this evaluation.

Table III.7. Comparison of Self-Reported Grades of Students Participating in Assessment with Those Who Did Not

Participation in Assessment	Reported Grades: Mostly A's	A's & B's	Mostly B's	B's & C's	Mostly C's	C's & D's	D's & F's
	Percentage of Students Reporting						
Students Participating in Assessment	13%	31%	17%	27%	10%	2%	Less than 1%
Students Not Participating in Assessment	21	33	16	19	8	3	Less than 1%

Student Support Services- Student Awareness, Use and Satisfaction

The final area addressed in the student survey was student services. In particular, the survey measured respondents' awareness and use of these services, along with their satisfaction with the help they received.

As indicated in Table III.8, the majority of students were aware of most services available to them on their campuses. In addition to the campus library, awareness of financial aid, tutoring and the learning resource centers was the highest. Only approximately 50 percent of students were aware of transfer centers, assessment centers and the EOPS programs, however. Less than one-quarter of respondents were aware of the GAIN Program. This last finding is not suprising, however, given the special nature of this program.

We would anticipate that students' awareness of various services would be higher among those respondents who had participated in the matriculation process than those who did not. Additional analyses of the survey substantiated this hypothesis. A significantly higher percentage of students who had attended an orientation program than those who did not were aware of tutoring, career counseling, personal counseling, job placement and disabled student services. Even higher levels of awareness of a broader range of services were found among students who had received counseling. Significantly higher percentages of these students indicated awareness of financial aid, tutoring, childcare, academic counseling, career counseling, job placement, student health, and EOPS services, along with learning resource and transfer centers. **The survey data do indicate, then, that matriculation has increased students' awareness of the resources available to them.**

Although students' awareness of services was relatively high, their use of services, in contrast, was relatively low. The most frequently used services by survey respondents included academic counseling, learning resource centers and tutoring services. Less than one-quarter of those surveyed had used these resources, however. Participation in matriculation did not seem to have a dramatic impact upon students' use of support services either. Signficantly higher percentages of students who attended orientation reported that they utilized tutoring and EOPS services. Additionally, students who had received counseling were more likely to use financial aid, tutoring and transfer center services. Use of other student services remained the same, however.

Table III.8. Student Support Services: Measures of Students' Awareness, Use and Satisfaction

	Percentage of Students Reporting			
Support Service	Aware of Service	Have Used Service	Satisfied with Services Received[1]	Dissatisfied with Services Received[2]
Campus Library	97%	42%	74%	26%
Financial Aid	97	13	72	28
Tutoring	94	20	75	25
Learning Resource Center	87	20	78	22
Academic Counseling	81	23	69	31
Career Counseling	78	13	69	31
Student Activities	75	5	65	35
Disabled Student Services	74	2	68	37
Placement/Employment Services	71	6	63	37
Student Health Services	66	3	63	37
Childcare Services	63	1	66	34

Table III.8. Student Support Services: Measures of Students' Awareness, Use and Satisfaction (Cont.)

	Percentage of Students Reporting			
Support Service	Aware of Service	Have Used Service	Satisfied with Services Received[1]	Dissatisfied with Services Received[2]
Personal Counseling	63%	1%	66%	34%
Transfer Center	52	5	72	28
Assessment Center	50	5	73	27
EOPS	49	4	70	30
GAIN Program	20	Less than 1	55	45

* Percentage of those students using the service who reported they were very satisfied or satisfied with services received.

83

For all services, the majority of students who had used them reported they were satisifed with the help they received. Student satisfaction was highest in relation to learning resource centers, tutoring services, campus libraries and financial aid. Satisfaction was lowest in regards to placement/employment services, health services, student activities and childcare services. Individual campuses will be able to look at their own survey responses to identify those activities/centers most warranting improvement at their campus.

In addition to the 16 specific student services discussed, students were asked to indicate their satisfaction with the treatment they had received from the Admissions and Records Office on their campus, and their treatment during registration. In both cases, the overwhelming majority of students expressed satisfaction. Almost 90 percent of respondents indicated they were satisfied with their Admissions and Records Office, and 85 percent were satisfied with their treatment during registration.

FACULTY SURVEY

In addition to the survey of students, ETI conducted a survey of faculty at the site visit institutions. The primary objectives of the survey were: 1) to determine the extent to which faculty had been involved in the planning and implementation of matriculation; and 2) to obtain their perceptions of the impact of the program on students and their college.

A total of 233 faculty responded to the survey, including 170 full time and 63 part time instructors. The group had a mean teaching experience of 10 years, with a mean of 3 years tenure at the college. Table III.9 presents the departmental affiliations of respondents. As indicated, a wide cross section of departments were represented in the survey.

Table III.9. Distribution of Faculty Survey Respondents Across Departments.

DEPARTMENT	PERCENT
Other	18%
English	13
Social Sci.	9
Math	8
Business	8
Biology	6
Voc./Tech.	6
Physical Sci.	5
Fine Arts	5
Humanities	5
Computer	4
Health	4
Psychology	3
Foreign Lang.	3
Education	.8
Home Econ.	.8
Agriculture	.4
Architecture	.4

In coordinating the administration of the survey, we asked that the individual colleges distribute it to a minimum of 400 faculty. In the event that a college had less than 400 instructors we asked that it be given to all teaching staff. Despite these efforts to distribute the survey to as broad a sample as possible, the survey response rate was inadequate to allow us to generalize the findings to the entire population of community college instructors as a whole. Potentially, this poor response rate is another indicator of the limited faculty involvement in the matriculation program revealed through the survey and discussed below. As with the student survey, however, we anticipate that we will be able to increase the participation of local colleges in the survey process in coming years of the evaluation.

Respondents Participation in Matriculation

The survey asked faculty to indicate if they had been involved in a variety of specific aspects of the matriculation program. Their responses are summarized in Table III.10. Roughly one quarter of respondents reported they had been involved in the planning of matriculation. With respect to the individual components, approximately one-quarter had also participated in the planning or implementation of assessment and orientation. Participation in other program components was more limited.

Table III.10. Faculty Respondents' Participation in the Matriculation Program.

Type of Participation	Percent
Participated in the overall planning of Matriculation at your college	25%
Served on Matriculation committee	10
Participated in the planning or implementation of:	
Assessment	22
Faculty Advisement	15
Student Orientation	22
Early Warning System	4
Research/Evaluation	10

One quarter of respondents also reported that they had served on a matriculation planning committee at their campus. xxxxxx xxxxx percent of the faculty, however, were unaware of the existence of such committees at their college.

The survey respondents were also asked to evaluate the extent to which they **perceived that** faculty had been involved and interested in matriculation on their campus. Their responses are presented in Table III.11. As shown, slightly over half of the respondents perceived that faculty had been involved in the planning and implementation of the program on

their campus, while approximately one-quarter believed that they had not. In addition, although the majority felt that faculty had been kept informed about the program on their campus and that instructors were aware of and interested in matriculation, over one-third of respondents did not.

Table III.11. Perceptions of Faculty's Involvement/Interest in the Matriculation Program

	Percentage of Respondents				
Survey Question	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Faculty involved in planning Matriculation	18%	36%	16%	8%	16%
Faculty involved in implementation of Mat.	12	44	17	8	17
Most faculty are aware/ interested in Mat.	2	38	25	11	20

These data support the contention of many site visit interviewees that faculty have not been actively involved in matriculation. Approximately one-half of the faculty survey respondents either felt that faculty were not involved or had no opinion on their level of involvement. If matriculation is to result in an increase in the institutional responsiveness of the colleges, however, we believe that faculty must actively participate in responding to the needs of students as identified through the matriculation process. We would anticipate then that future surveys will show more participation in and awareness of the program.

Faculty's Perceptions of Program Implementation and the Impact of Matriculation Upon the Students and Colleges

Survey respondents were asked to evaluate how effectively matriculation had been planned and implemented at their colleges. Approximately one-third of the faculty indicated that the program had been well administered, one-third felt it had not and one third had no opinion. Additionally, respondents were asked if faculty had been kept informed about the program. Approximately half (48%) perceived that they had, but over one-third (36%) felt they had not. The balance of those surveyed had no opinion.

Finally, survey respondents were asked to evaluate the impact of matriculation upon students and their colleges. Their responses are summarized in Table III.13. What is most striking about the data is the high proportion of faculty which expressed no opinion regarding the effects of matriculation. Depending upon the issue, the percentage of respondents falling into this category ranged from over one-quarter to almost half.

Faculty's lack of opinion regarding these issues could be attributed to the fact that matriculation is in its early stages of implementation and respondents were reluctant to evaluate it outcomes at this point in time. Alternatively, their absence of feelings could reflect more a lack of knowledge of the program and its effects. ETI will explore this subject further in the site visits and faculty surveys to be conducted during the 1989-90 program year.

Among those faculty who did express opinions regarding the impacts of matriculation, evaluations were generally positive. Specifically:

- 72 percent felt that students found the matriculation process beneficial; and

- 64 percent felt that the program was **not a barrier** to vocational students.

Faculty's positive evaluation of the impact of the matriculation process upon students was also evident in their opinion regarding the potential mandatory versus voluntary nature of the process. Approximately 60 percent of the respondents indicated that the process should be mandatory for all new students except those specifically excluded by local board policy. Less than 20 percent disagreed with making the program a requirement, while 18 percent had not opinion. In addition, over half (54%) felt that requiring matriculation **would not** negatively impact enrollments, while 19 percent felt that it would.

Table III.12. Faculty Evaluation of the Matriculation Program.

Survey Question	Percentage of Respondents				
	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
Students find Matriculation helpful/beneficial	6	29	11	2	48
Matriculation is making this college more responsive to students' needs	10	37	10	4	35
Matriculation is a barrier to vocational students	6%	16%	32%	14%	29%
Matriculation has improved student services	8	28	15	6	41
Matriculation has made this remedial college	.4	10	36	21	28
Matriculation has had a major impact impacted on the instructional program	2	21	25	10	37

With respect to the impacts of the program on their colleges:

- 78 percent felt that the program was making their college more responsive to students' needs;
- 63 percent felt that matriculation had improved student services; and
- 85 percent disagreed that matriculation was making their college a remedial institution.

Significantly, only 40 percent of the faculty perceived that matriculation had had a major impact upon the instructional program at their school. This finding indicates that many faculty are not yet aware of the greatly

increased awareness of students' need for remediation identified during the course of interviews at the site visit colleges. It also raises the question of whether the need for instructional improvement viewed by many as critical to the success of matriculation is generally acknowledged by faculty. Again future site visits and faculty surveys will enable us to explore this question in greater depth.

SUMMARY AND CONCLUSIONS

The sample of students responding to ETI's survey included a disproportionate number of younger, White students. In this respect the survey outcomes cannot be generalized to the entire population of community college students as a whole. However, the survey did produce some significant findings which have important implications for the matriculation program, including:

- The majority of students receiving matriculation services perceived that they benefitted from these services. These perceptions should allay concerns that matriculation is perceived as a barrier by many students.

- Despite the fact that most students perceived they benefitted from matriculation, 40 percent of those surveyed indicated that they were confused regarding which courses they should be taking. These responses indicate that the colleges need to do more in helping students to design their programs, and need to provide alternatives when students' desired courses are full or offered at inconvenient times.

- A significant proportion of students surveyed reported that they encountered problems in enrolling in their desired courses either because they were full or were offered at inconvenient times. If matriculation is to achieve its intended objective of making the colleges more responsive to the needs of students, the issue of course offerings and schedules must be dealt with at both the state and local college level.

- The process of defining an educational goal requires time, particularly for younger students. This process cannot be circumvented by matriculation, but must instead be incorporated into the program. In terms of the delivery of the different program components, this means that intensive counseling and the development of an educational plan should be delayed until after

- Matriculation does increase students' awareness of the support services available to them, but does not seem to have a consistent effect on students' utilization of these services.

- The majority of students are satisfied with the support services they receive. Those services which the survey data indicate would most warrant improvement, however, include employment/job placement services, health services, childcare services and personal counseling services.

- Preliminary analysis of self-reported data on student grades indicates that matriculation has not yet impacted student success in this regard. Until other data on students' academic history are available, however, no definitive conclusions regarding the impact of the program upon student success can be drawn.

Interpretation of the faculty survey outcomes was also limited because of an inadequate response rate. The analysis of responses did suggest the following, however:

- Faculty's participation in the matriculation program has been relatively limited;

- Those faculty who were able to evaluate the impact of the program upon their colleges and students were generally positive regarding its effects;

- The majority of faculty felt that the matriculation process should be mandatory; and

- The majority of faculty do not yet perceive that matriculation has had a major impact upon the instructional program at their schools.

If matriculation is to achieve the increase in institutional responsiveness desired by the Board of Governor's, we believe that faculty involvement in and awareness of the program will need to increase. Potentially, as suggested by several site visit interviewees, the limited funding of the program during the 1987-88 program year affected faculty's perceptions regarding the future and importance of matriculation, and the interest they took in it. If funding is increased in future years, we would anticipate that faculty involvement will rise.

IV. THE ROLE AND EFFECTIVENESS OF THE STATE CHANCELLOR'S OFFICE

In addition to specifying the colleges' responsibilities for the implementation of matriculation, the Board of Governors' plan details the role of the State Chancellor's Office in implementing the program on a statewide basis. In order to obtain a measure of the effectiveness of the Chancellor's Office in fulfilling this role, matriculation coordinators were asked to evaluate the Chancellor's Office's performance relative to specific responsibilities assigned to the Office in the plan. Table IV.1 summarizes their responses.

As indicated, the coordinators perceived that the Chancellor's Office had done the best job in communicating Board of Governors' and State Chancellor's Office policy regarding matriculation. Nearly half of the colleges perceived the Chancellor's Office as effective or very effective in performing this function. The colleges were most critical of the Chancellor's Office in regards to the identification of the areas of staff development and training necessary for the implementation of matriculation and the provision of such training. Slightly over half of the colleges indicated that the Chancellor's Office had been ineffective or very ineffective in relation to its staff development responsibilities.

With respect to their overall evaluation of the Chancellor's Office's performance in implementing matriculation, approximately one third of the colleges perceived that their performance has been adequate. A slightly higher percentage of the coordinators (38%) judged the Chancellor's Office to be ineffective in overall coordination, while 26 percent considered them to have been effective.

College staff identified a number of ways in which they thought the State Chancellor's Office could better facilitate the implementation of matriculation. The most frequent requests were for: 1) more specific information and/or direction from the Chancellor's Office concerning how to implement the program and what the colleges would be held accountable for; 2) more consistency in the directions/information given the colleges; and 3) more staff in the State Chancellor's Office to deal with matriculation and respond to the colleges. (See Table IV.2.) Additionally, one-quarter of the coordinators identified issues related to program funding, including a request for the more timely distribution of funds, higher levels of funding and information about future funding for the program.

TABLE IV.1. MATRICULATION COORDINATORS' EVALUATIONS OF THE EFFECTIVENESS OF THE STATE CHANCELLOR'S OFFICE IN IMPLEMENTING MATRICULATION

ROLE/FUNCTION	RATING OF EFFECTIVENESS				
	VERY INEFFECTIVE	INEFFECTIVE	ADEQUATE	EFFECTIVE	VERY EFFECTIVE
Solicitation of district's and colleges input and recommendations regarding matriculation	7%	30%	27%	26%	10%
Development of state level policies regarding matriculation	8	33	33	21	5
Communication of Board of Governors' and State Chancellor's Office policy regarding matriculation	9	17	27	42	5
Identification of areas of training and staff development necessary for implementation of matriculation	10	41	36	11	2
Provision of training and staff development necessary for the implementation of matriculation	12	42	31	11	4
Overall coordination of the implementation of matriculation on a statewide basis	6	32	36	21	5

Table IV.2. Colleges' Requests/Recommendations for Improvement of State Chancellor's Office's Coordination of Matriculation

Request/Recommendation	Percentage of Colleges Identifying
More guidance with more precise and specific directions especially with respect to data collection and the research component.	42%
More consistency in directions and information.	28
More staff in the Chancellor's Office including a full time matriculation coordinator with equal status (other program organizers.	28
Full funding, if not even more funding, which arrives in a timely fashion. Information regarding what colleges can expect with regards to future funding of the program.	25
More training at a State level/more conferences to discuss issues.	18
Less cumbersome reporting procedures.	13
More regional coordination with more networking and constructive peer review.	13
More timely information.	12
More guidance in interpreting legislation especially with respect to mandatory versus required participation and assessment prerequisites versus advisement.	11
More attention paid to individual college's situation and communication more with individual colleges.	10
Chancellor's office staff should spend more time in the field to see what is really happening.	10

These requests were repeated by different groups of college staff during the course of the site visits. As a group, however, college presidents differed from other staff in that they thought the State Chancellor's Office should confine providing direction related to matriculation to general policy guidelines such as the Board of Governors' plan rather than detailed regulations and specifications for program implementation. The only area in which the presidents favored more specific policy was in relation to the issue of mandatory versus advisory assessment and course placement, but even in this regard slightly less than half of the chief executive officers felt it should be a local decision.

The presidents, more than any other category of college staff, also perceived that the Board of Governors and the State Chancellor's Office had failed to take into account the importance of instruction in designing and implementing matriculation. Several presidents remarked that instruction had been "left out" of matriculation, and cautioned that the program could not be successful without appropriate changes in instructional practices.

The presidents, in conjunction with the chief information systems officers, also raised the issue of the defunding of the statewide MIS and its potential impact upon matriculation. Both groups stressed that the evaluation of matriculation was dependent upon implementation of the MIS, and several individuals remarked that the implementation of the program should have been delayed, at least on a statewide basis, until the MIS was implemented. In any case, however, both parties felt that the full funding and implementation of the system should be a major priority of the State Chancellor's Office.

V. Cost Analysis

The overall purpose of the cost analysis of the statewide evaluation of matriculation is to examine the costs of the program. Specifically, this part of the study is to address the questions of whether the workload measures and cost assumptions utilized for the original estimates of matriculation expenses were accurate, whether additional cost variables need to be included, and if net costs changed in other services and instructional areas as a consequence of the implementation of matriculation. More limited goals were established for the first year analysis including: 1) to establish a baseline database of matriculation expenditures by college; 2) and to compare these baseline expenditures with the initial estimates of matriculation costs, as produced for the Chancellor's Office, by MPR Associates, of Berkeley, California. This section of the report summarizes the outcomes of the first year cost analysis activities. (A more detailed, technical discussion of the cost analysis is presented in Appendix 3.)

Background

The first task in examining the costs of matriculation services over the period of statewide implementation was to establish baseline cost data. That is, how much was being expended by the colleges on matriculation related services prior to the initiation of the program and the infusion of state funds? This amount was estimated by MPR to be $105,433,677 for the 1982/83 program year. The primary objective of our first year cost analysis was to update MPR's estimate of baseline costs, and to base it on data from the population, rather than a sample, of colleges.

The initial design of cost analysis called for the baseline matriculation expenditures to be from 1986/87. These data were reported by the colleges in their original plans for the implementation of matriculation. Unfortunately, due to time constraints, the cost forms included with the 1986/87 Plan were designed by Chancellor's Office staff prior to contracting with the statewide evaluators. Because the cost forms used by the Chancellor's Office did not provide sufficient detail to produce comprehensive measures of current expenditures or data comparable to the initial MPR cost estimates, the resulting data provided by the colleges could not be used to construct the needed baseline expenditures.

A new set of cost forms which addressed these limitations were designed by the evaluation team to collect data for the 1987/88 program year. Several meetings were held with the Chancellor's Office and with representatives of the Colleges to review the forms. They were also field tested at three community colleges. The goal was to develop a survey format that could match the precision of the MPR data, which were collected by a research team during site visitations to twelve campuses. It is difficult to match the flexibility of on-site visitations when cost data are collected by survey instruments. We believe, however, we were able to achieve appropriate levels of detail and precision in the 1987/88 cost data.

In the absence of adequate data from prior years, a decision was made to use the 1987-88 cost data to provide a baseline measure of matriculation related expenditures. The feasibility of utilizing these data in this manner was enhanced by the amount and timing of state funding received by the colleges for the 1987-88 program year. As discussed elsewhere in this report, only 20 percent of full state funding was made available to the colleges during 1987/88, and even these funds did not reach the colleges until the Spring. For this reason nearly 50 percent of state funds were carried over to the 1988/89 program year.

Using the 1987-88 cost data, we have produced a baseline data set that in the aggregate is very comparable to the initial MPR estimates. By employing estimation techniques to fill in missing data for nonresponding colleges, and using several adjustment factors to allow for environmental changes (e.g. salary inflation) from the time of the MPR estimates (1982/83 to 1987/88), we have produced a baseline total district expenditure that varies from the initial MPR estimate by only 4.2 percent. As discussed below, however, we did discover substantial differences in the expenditures associated with individual components of the program.

Matriculation Expenditures for 1987/88

This section presents total matriculation expenditures reported for 1987/88. The baseline component of these data will be discussed in the following section.

Table V.1 shows total matriculation expenditures by matriculation activity and percent allocations by activity. Table V.2 shows the breakouts of these totals into categories of direct services versus administration and Chancellor versus district contributions. The same total expenditures shown in Table V.1 are repeated in Column (3) of Table V.2. Columns (1) and (2) break these totals into direct service and coordination/ administration components. Columns (4) and (5) breakout the totals by

the relative contributions from the Chancellor's Office and from district funds. The relative percent allocations are shown in brackets below each expenditure.

The separation of expenditures on the coordination/administration component of matriculation services from those on direct services to students was handled in two ways. First, the last category of matriculation service was for overall matriculation coordination and administration. All coordination/administration personnel with an overall responsibility for matriculation, e.g. the matriculation coordinator, were reported in the ninth category of matriculation service, Matriculation Coordination and Administration. Conversely, the coordination and administration component associated with each matriculation activity, e.g. the Director of Admissions, were listed under the Coordination/Administration line for that activity. Thus, it is shown in Table V.1 that 2.8% of all matriculation expenditures were spent on overall matriculation administration, and the bottom line of Table V.2 shows that 18.4% of the total cost of matriculation services were used to support overall administration as well as the administrative components for each matriculation activity.

Data at the level of detail shown in Table V.2 are presented for each responding college in Appendix 4 of this report. Appendix 4 also contains data on college level operating expense and data processing allocations for 1987/88.

The Baseline Data

For the reasons previously described, 1987/88 data had to be used as the basis for developing the baseline expenditure data. To derive an estimate of baseline expenditures from these data, expenditures from the Chancellor's Office contribution were omitted. Thus, the total baseline expenditure was based on the total shown for Column (5) of Table V.2, above, $119,478,808. (Baseline data by college are shown in Appendix 4.)

Because there were six nonresponding colleges when these data were created, baseline expenditures were estimated for these colleges to complete the baseline dataset. Based on the assumption that the six colleges were making expenditures on matriculation services at the level of the other colleges, they were assigned expenditure values based on the

overall average expenditure per pupil enrolled "for credit."[1] This average per pupil amount was multiplied by the "for credit" enrollment at each of the six nonresponding colleges to derive an estimated total expenditure for each of them.

TABLE V.1 Total Expenditures by Matriculation Activity For All Colleges - 1987/88

Activity	Dollars	Percent
Admissions/Registration	$37,253,980	30.2%
Orientation	7,171,497	5.8
Skills Assessment and Student Evaluation	8,048,942	6.5
Advisement, Counseling, and Educational Plan	39,799,520	32.2
Student Progress Follow-Up	13,152,522	10.7
Institutional Research and Evaluation	1,441,943	1.2
Matriculation Training Activities	906,243	0.7
Matriculation Related Data Processing	12,181,384	9.9
Matriculation Coordination Administration	3,479,093	2.8
Total Expenditure:	$123,435,121	100.0%

[1] "For credit," means a student taking courses for credit. These were judged to be the students most likely to use matriculation services.

TABLE V.2 Total Expenditures By Matriculation Activity For All Colleges - 1987/88

	Direct Services (1)	Coordination/ Administration (2)	Total Expenditures (3)	Chancellor Contribution (4)	Direct Contribution (5)
Admissions/ Registration	$30,741,057 (82.5%)	$6,512,923 (17.5%)	$37,253,980 (100%)	$507,149 (1.4%)	$36,746,831 (98.6%)
Orientation	$5,967,886 (83.2%)	$1,203,611 (16.8%)	$7,171,497 (100%)	$474,664 (6.6%)	$6,696,833 (93.4%)
Skills Assessment and Student Evaluation	$6,448,815 (80.1%)	$1,600,126 (19.9%)	$8,048,942 (100%)	$889,160 (11.0%)	$7,159,782 (89.0%)
Advisement, Counseling, and Educational Plan	$36,259,386 (1.1%)	$3,540,134 (8.9%)	$39,799,520 (100%)	$949,743 (2.4%)	$38,849,777 (97.1%)
Student Progress Follow-Up	$11,962,368 (91.0%)	$1,190,153 (9.0%)	$13,152,522 (100%)	$377,366 (2.9%)	$12,775,155 (97.1%)
Institutional Research and Evaluation	$680,620 (47.2%)	$761,322 (52.8%)	$1,441,943 (100%)	$172,439 (12.0%)	$1,269,503 (88.0%)
Matriculation Training Activities	$410,206 (45.3%)	$496,036 (54.7%)	$906,243 (100%)	$79,894 (8.8%)	$826,348 (91.2%)
Matriculation Related Data Processing	$8,214,086 (67.4%)	$3,967,298 (32.6%)	$12,181,384 (100%)	$156,644 (1.3%)	$12,024,740 (98.7%)
Matriculation Coordination Administration	$0 (0.0%)	$3,479,093 (100%)	$3,479,093 (100%)	$349,254 (10.0%)	$3,129,839 (90.0%)
Total Expenditures:	**$100,684,425 (81.6%)**	**$22,750,696 (18.4%)**	**$123,435,121 (100%)**	**$3,956,313 (3.2%)**	**$119,478,808 (96.8%)**

Comparing the Baseline Data to the MPR Estimates

A comparison of the baseline data with the initial MPR estimates of matriculation expenditures for 1982/83 is presented in Table V.3. The comparison of the two is complicated slightly by the fact that the categories of matriculation services employed by MPR are different than those in current use. In particular:

1) MPR had no separate category for data processing expenditures, but showed these costs as a large part of Admissions/Registration expenditures. To facilitate the comparison with the 1987/88 baseline data, these costs were separated;

2) MPR did not identify student follow-up as a separate program component, but included it with all other counseling activities. Again for the purposes of comparison, the MPR estimate was broken out; and

3) the components of Institutional Research/Evaluation and Matriculation Training Activities were not included in the MPR analysis.

Overall, the total baseline expenditure that MPR showed for 1982/83 was $105,433,677, compared to our total baseline estimate of $119,478,808. When the MPR total is adjusted to make allowances for inflation and other changes in conditions that would affect the comparability of the two estimates, we find that the MPR estimate of **total** baseline expenditures is comparable to our 1987/88 baseline expenditure data.

Table V.4 summarizes this comparison of adjusted expenditures for total expenditures and for individual program component costs. Column (1) of Table V.4 lists the same 1982/83 expenditure estimates shown in Table V.3. Column (2) shows them with adjustments. Three adjustments were taken into account to render these costs more comparable to the 1987/88 data. First, they were inflated by 16.25% to account for community college salary inflation during this period. Second, they were deflated by a reduction in the number of students enrolled "for credit" (4.45%) during the same time span. Last, the estimates were inflated by the error term estimated for the MPR sample, which was 4.63%. Overall the adjustment factors increase the original MPR estimates by approximately 16.25%.

Column (3) of Table V.4 shows total 1987/88 baseline expenditures by matriculation activity. Columns (4) and (5) show dollar and percent comparisons in nominal and real terms, respectively. The totals of these last two columns show that while baseline matriculation expenditures are shown to increase by 11.3% over this period of time, in real terms, this represents a slight drop in matriculation expenditures of 4.2%. As we know that there is some unknown degree of error in all of these estimates, it appears that the MPR estimate of **total** baseline matriculation expenditures is very comparable with the 1987/88 baseline expenditure data, as expressed in real terms.

Further examination of Table V.4 reveals, however, some major differences in the estimates of expenditures for specific program components, including orientation, skills assessment/student evaluation and data processing. In one sense, the differences in expenditures for orientation and assessment substantiate the pattern of activities local colleges reported in implementing their programs during 1987-88. Colleges indicated that they placed major emphasis upon developing or expanding their orientation and assessment services, and we would anticipate that expenditures in these areas would be higher than the MPR baseline estimates, as is the case. An exploration of how these increased expenditures compared with the MPR cost estimates for implementing the matriculation program was beyond the scope of work for this first year of the cost analysis. However, this type of analysis will be conducted in the coming year, when we anticipate that we will also have a more accurate estimate of program component costs based upon a full year of program operations.

The discrepancy in data processing expenditures is more problematic however. As shown, matriculation related data processing expenditures in 1987-88 were 48 percent below the adjusted MPR estimates of baseline costs for 1982-83. Interpretation of this difference is complicated by the fact that MPR did not separate out data processing as a separate cost component. To fully explore the cost differential, we need to compare in detail the individual cost elements incorporated within MPR's estimate and the data processing expenditures reported by the colleges for 1987-88. Again, this activity was beyond the scope of work for the first year cost analysis. Adequate detailed data which would allow us to explore this issue during the coming year have been compiled for a sample of 25 colleges, however.

TABLE V.3 College Expenditures on Matriculation - 1987/88 Compared to the MPR Expenditure Estimates - 1982/83

*Matriculation Expenditures 1987/88		*Matriculation Expenditures 1982/83	
Admissions/ Registration	$36,746,831	Admissions/ Records	$36,676,363**
Orientation	$6,696,833	Orientation	$1,224,431
Skills Assessment and Student Evaluation	$7,159,782	Testing	$392,497
Advisement, Counseling, and Educational Plan	$38,849,777	Counseling	$33,058,157***
Student Progress Follow-Up	$12,775,155	Counseling	$10,870,672***
Institutional Research and Evaluation	$1,269,503		
Matriculation Training Activities	$826,348		
Matriculation Related Data Processing	$12,024,740	Data Processing From Admissions/Records	$19,907,185**
Matriculation Coordination Administration	$3,129,839	Administration	$3,304,372
Total Expenditures:	**$119,478,808**		**$105,433,677**

* These numbers only reflect college expenditures and do not include any expenditures from the Chancellor's Office Matriculation Funds for 1987/88. Also, 1982/83 data excludes summer sessions, while 1987/88 data includes them. The source of the 1982/83 data is the table shown on Page 17 of the MPR Report.

** The 1982/83 amount shown for Admissions/Records represents the $56,583,548 expenditure originally reported for this category less the amount which was attributed to data processing, which is now reported above under that category. The breakout is based on data presented in Table V.4, page 22, Appendix E, of the MPR Report.

*** The total expenditure of $43,928,829 originally reported for counseling services, as reported for 1982/83, was prorated into two categories using their 1987/88 percent allocations.

TABLE V.4 College Expenditures on Matriculation - 1987/88 Compared to the MPR Expenditure Estimates - 1982/83 With Adjustments

Matriculation Activities	Matriculation* Expenditures 1982/83 (MPR)	Adjusted** Expenditures 1982/83	Matriculation Expenditures 1987/88	Expenditure*** Difference 82/83-87/88	Adjusted*** Difference 82/83-87/88
Admissions/ Registration	$36,676,363	$42,625,198	$36,746,831	$70,468 .19%	($5,878,367) (13.8%)
Orientation	$1,224,431	$1,423,031	$6,696,833	$5,472,402 446.9%	$5,273,802 370.6%
Skills Assessment and Student Evaluation	$392,497	$456,159	$7,159,782	$6,767,285 1724.2%	$6,703,623 1469.6%
Advisement, counseling Educational Plan	$33,058,157	$38,420,126	$38,849,777	$5,791,620 17.52%	$429,651 1.12%
Student Progress Follow-up	$10,870,672	$12,633,874	$12,775,155	$1,904,483 17.52%	$141,281 1.12%
Institutional Research and Evaluation			$1,269,503	$1,269,503	$1,269,503
Matriculation Training Activities			$826,348	$826,348	$826,348
Matriculation Related Data Processing	$19,907,185	$23,136,092	$12,024,740	($7,882,445) (39.6%)	($11,111,352) (48.0%)
Matriculation Coordination Administration	$3,304,372	$3,840,335	$3,129,839	($174,533) (5.3%)	($710,496) (18.5%)
Total Expenditures:	$105,433,677	$122,534,814	$119,478,808	$14,045,131 11.3%	($3,056,006) (4.2%)

*The MPR expenditure estimates were based on cost data gathered on site from a sample of 12 Colleges.

**The adjusted 1982/83 expenditure data reflect three adjustments that render these data more directly comparable to the 1987/88 data. See explanation of these adjustments on page 9 of text. Also, the 1987/88 data includes summer school expenditures, while the 1982/83 data does not. As we have no basis for estimating the impact of this difference, no adjustment for this difference is included.

***The numbers in brackets ( ) represent areas of declining expenditure between 1982/83 and 1987/88.

Directions and Issues for Future Matriculation

Cost Analyses

At the end of this first year of a multi-year cost analysis, it is important to assess the course that has been set. Are we moving in a direction that will allow us to meet the goals initially set for the cost analysis? We have established a baseline database that shows some variation from the baseline estimates by individual matriculation activity, but which produces a total overall estimate of baseline expenditures that is very close to the original MPR estimate in real terms. This substantiates the compatibility of MPR's and our analysis methodologies, and is a basis for optimism in our hopes to achieve the overall project goals.

We have also obtained detailed 1987/88 expenditure data from 27 of the 120 colleges included in this analysis. Although analyses of these detailed data did not fit into the scope of the objectives set for this first year of analysis, they will be critical to future analyses of whether the workload measures and cost assumptions utilized for the original estimates of matriculation expenses were accurate and whether additional cost variables need to be included.

During the coming year we will continue to work with the Chancellor's Office to refine the questions to be addressed through the cost analysis. In part, the type of analysis which will be possible will be determined by the amount and detail of the data which the local colleges provide. We recommend that the Chancellor's Office strongly encourage their participation in this important component of the study.

VI. CONCLUSIONS AND RECOMMENDATIONS

The full implementation of matriculation will require major changes in the operations of the California community colleges. Prior to 1987-88, the community colleges were providing services related to all of the components of matriculation. These services, however, were not delivered on the same scale or provided in as comprehensive a manner as implied in the Seymour Campbell Matriculation Act or the Board of Governors' plan for implementing the program. Achieving the intent or "spirit" of matriculation will require that colleges greatly expand student service activities, significantly improve their data processing capabilities and respond to the changing needs of students.

Without any doubt, the colleges' progress in meeting these challenges in the initial year of program implementation was severely impacted by the major reduction in state level funding and delays in the distribution of state monies to the local level. Beyond the reduction in resources available to the colleges to initiate their programs, the major impact of the funding cut was the generation of skepticism among the colleges regarding the importance and future of matriculation. Although the majority of schools did initiate program activities in 1987-88, they did so on a more limited and cautious basis than they originally planned. The hiring of additional staff was postponed and services were delivered to a restricted number of students.

This is not to say that local colleges did not made a good faith effort to implement matriculation. Indeed, in the context of the "before picture" of where the colleges were in relation to the delivery of matriculation related services prior to 1987, the evaluation substantiates a significant effort on the part of the colleges to deliver the required services. In addition, we observed a high level of commitment to the concept of matriculation on the majority of campuses visited. The primary efforts of the colleges were focused upon the expansion of existing assessment and counseling services, with 68 percent of the colleges reporting that they expanded assessment activities and 82 percent of the colleges reporting that they expanded counseling services. In the majority of colleges, these services were expanded despite the inability to hire additional staff originally planned for the implementation of the program.

ETI's evaluation of the initial year of program implementation leads us to conclude, however, that the major objectives of matriculation will not be achieved unless full funding is provided. The program as defined in the legislation and the Board of Governor's plan, and indeed in the local implementation plans of many colleges, is too ambitious to be achieved under cutbacks in funding. Implementation of matriculation will require the full commitment of resources and effort on the part of the Legislature and the community college system. As such, we recommend:

*** Full funding for the implementation of matriculation should be provided to the colleges by the Legislature.**

In the absence of full funding, the Legislature and the Board of Governor's must re-evaluate the objectives and expected outcomes of the program. The contraction of the funding and scope of the program in its initial year of implementation already has implications for the evaluation of the program. The current timeline of the evaluation requires that the final report on matriculation be submitted to the Legislature by March, 1991. Given the funding cutbacks, ETI does not believe this timeline allows for a complete and thorough evaluation of the impact of the program. As such, we recommend:

*** A five year timeline should be established for the evaluation of matriculation, and any decisions regarding the effectiveness and future funding of the program should be delayed until the completion of the 1991-92 program year.**

As indicated repeatedly throughout this report, the statewide implementation of matriculation represents a major educational reform effort within the California community colleges. Administrators and evaluators in those community college systems which have implemented similar programs on an even more limited scale, such as Miami-Dade Community College District in Florida, perceive that a minimum of five years is necessary to fairly evaluate program effectiveness. The restriction of funding and the scale back in California's program during the initial year make it even more critical that an adequate period be allowed for a fair assessment of the program and its outcomes. In addition, given delays in the development of the Statewide MIS, adequate data for a comprehensive evaluation of the program may not be available until late into the 1991-92 program year.

Another major factor which the evaluation revealed to have a serious impact upon the implementation of matriculation in 1987-88 was poor communication between the Chancellor's Office and local colleges. As previously discussed, almost 40 percent of the colleges in the state

perceived that the Chancellor's Office had been ineffective in coordinating the program on a statewide level. The primary complaints expressed by college staff regarding the Chancellor's Office centered around the lack of precise and specific direction regarding the program and inconsistent information and responses to colleges' inquiries.

Following the 1987-88 program year, a new State Chancellor was appointed and major changes occurred in the staffing of the matriculation program within the Chancellor's Office. The impact of these changes upon the program and the quality of communications with the field will be evaluated during the coming year. We believe, however, that the ultimate success of the matriculation will depend to a major degree upon the quality of leadership and support provided the local colleges by the Chancellor's Office. As such, we recommend:

*** The Chancellor's Office should allocate adequate resources and staff to ensure the effective coordination of the matriculation program on a statewide level.**

The requests from local colleges for more specific direction and guidance regarding matriculation raises the controversial issue of local autonomy and control. We found during the course of our site visits that while administrators and staff involved in the implementation of the program felt more specific direction and guidelines from the Chancellor's Office were necessary, college presidents were generally resistant to the notion of increased regulation. The stance of college presidents reflects a long held notion that individual colleges should have maximum autonomy and control in order to best meet the unique needs of their community.

On the other hand, many local college staff were confused and concerned regarding what they would be held accountable for by the Chancellor's Office and the Legislature in implementing matriculation. Their concern was related to both how the program was to be implemented, as well as to what outcomes would be expected. Matriculation coordinators and other staff indicated they would like more specific direction from the Chancellor's Office on what elements/activities the State would like to see in the delivery of the individual components of matriculation, as well as how the progress and success of local colleges in implementing matriculation would be evaluated.

The widespread confusion and concern in the field regarding matriculation indicates the need for some policy decisions on the part of the Board of Governors and the Chancellor's Office regarding the amount of direction which will be provided. If the Board and Chancellor wish to maximize the

local autonomy of the colleges, then colleges must be free to define at the local level how they will implement matriculation and the criteria by which they will evaluate its success. Of course, these decisions must be made in the context of the matriculation legislation, but each college should be allowed to interpret the legislation on an independent basis. On the other hand, if the Board of Governor's and Chancellor's Office choose to define certain objectives to be achieved on a statewide basis through matriculation, then these objectives must be clearly and specifically communicated to the field. Guidance should also be provided in how these objectives are to be achieved. The failure to clearly define policy in this regard will negatively impact the implementation of matriculation in the future. As such, we recommend that:

*** The Board of Governors and State Chancellor must clearly define the level of autonomy individual colleges will have in the implementation and evaluation of matriculation. In the event local colleges are to be held accountable for certain statewide program objectives, these objectives must be clearly communicated to the field.**

Two other important and related issues raised through the evaluation include the impact of matriculation upon the instructional program and the level of involvement of faculty. As discussed elsewhere in this report, matriculation has identified a greater need for remedial instruction than was previously recognized at many colleges. In many cases, colleges lack the faculty resources and facilities to respond to the need identified, particularly in regards to ESL instruction. If matriculation is to achieve one of its primary objectives in making the colleges more responsive to the needs of students, plans for meeting the need for remediation will have to be developed on a state and local level. In addition, as matriculation continues to reveal additional student needs, (such as the demand for more convenient class schedules revealed through ETI's student survey) the colleges and Chancellor's Office must be prepared to consider and respond to these issues. As such, we recommend that:

*** As part of their annual progress reports, colleges should be required to identify student needs identified through the matriculation program and define how they will address those needs in the coming year. Following the review of local college plans, the Chancellor's Office should in turn identify statewide issues requiring action and a plan for addressing them.**

The evaluation outcomes also indicate that faculty involvement in matriculation has been very limited. In part their limited participation may reflect skepticism regarding the future of the program emerging from

funding cutbacks and delays in program implementation. If, however, matriculation is to result in increased institutional responsiveness within the colleges, faculty must be aware of the program and involved in responding to the student needs it identifies. As such, we recommend that:

*** Faculty involvement in matriculation should be strongly encouraged at the local and state levels. Faculty should be kept informed about the implementation and outcomes of the program on a regular basis, and faculty should be well represented on local and state level matriculation planning committees.**

Finally, the evaluation has provided some insight into how the components of matriculation might be most effectively delivered. ETI's survey of students revealed that almost half of students change their educational goals on the basis of their initial experiences in their college coursework. We do not believe that this phase of exploration can be circumvented by matriculation, but should instead be incorporated into the matriculation process. As such, we recommend that:

*** The development of a student educational plan, as required in the Board of Governors' plan, should be delayed until after the completion of a student's first term.**

The student surveys also revealed that 40 percent of students, regardless of whether or not they had participated in matriculation, were confused regarding which courses they should be taking. These responses indicate that the colleges need to do more in helping students to design their programs in the initial phase of matriculation, and need to provide alternatives when students' desired courses are full or offered at inconvenient times. As such, we recommend that:

*** In orientation and initial counseling sessions, major emphasis needs to be placed upon helping students select their courses. In this regard the development of a first term course schedule would be a useful exercise. College staff should also be readily available during the registration process to assist students in selecting alternative courses if they are unable to follow their program.**

The student survey also revealed, however, that the vast majority of students receiving matriculation services found them to be useful, and did not perceive the process to be a barrier. These findings, although preliminary, indicate that matriculation is being implemented in an effective manner. During the coming years of the evaluation, we will move beyond students' perceptions of the program to focus upon its impact upon critical measures of student success.

APPENDIX 1

EXEMPTION CRITERIA PROPOSED BY COLLEGES

Criteria Related to Prior Academic Experience/Assessment Results	Percentage of Colleges Using
Students who have completed an associate degree of higher.	92%
Students who have recent scores from SAT, ACT, SCAT, CGP, ASSET or comparable placement tests.	37
Students with previous English or math coursework	15
Students enrolled in a full course of study at another institution.	10
Continuing students who are performing successfully and are nearing completion of degree.	7
Continuing or returning transfer students to this institution.	5
Students transferring from other postsecondary instituions with credit for freshman composition and college algebra.	5
Students who have attended a postsecondary institutions and have received counseling regarding educational goals.	4
Students undergoing extensive testing through the Learning Assistance Program.	2
Students who have taken more than 15 semester or 22 quarter units.	1
Students who have not accumulated 10 units.	1
Students who have completed 30 or more units at the college.	1
Students who have earned 12 or less cumulative units in mixed pattern.	1
Continuing students who have completed 45 units and have a defined major and minimum GPA of 2.0	1

Criteria Related to Unit Load or Type of Course/Program	Percentage of Colleges Using
Students taking courses not dependent on skills pre-requisites.	44%
Students taking courses to upgrade occupational skills or as continuing education related to the student's employment.	36
Students whose educational goal is "personal growth", and who seek to enroll in, and only in, courses related to "personal growth".	20
Students enrolling in six or fewer units.	19
Students enrolling in contract instruction.	19
Students who enroll in and only in non-credit classes.	18
Students participating in a state or federally sponsored apprenticeship program.	14
Students who wish to take only performance or activity courses.	13
Students enrolling in institutes/workshops.	7
Students planing to enroll only in evening classes.	5
Students enrolling only in summer session.	3
Students enrolling only in mini-courses.	3
Students enrolling as special high school student admission.	3
Students enrolled in only one course.	2
Students in the Police Academy	2
Students taking Community Services courses offered for ADA.	2

Other Criteria	Percentage of Colleges Using
Other students who should be exempted because of extenuating circumstances as determined by a dean or committee.	8
Students with physical or learning disabilities for whom the regular assessment would be inappropriate.	5
Students providing proof of demonstrated skills level competency will be excluded from assessment of skill levels.	2
Foreign students.	2
Students who are 55 years of age or older who are not degree oriented.	1

APPENDIX 2

THE STATEWIDE EVALUATION OF MATRICULATION
SURVEY OF STUDENTS

_____

Dear Student:

Since you enrolled, our college has provided you with information and services to help you define your educational and vocational goals, and to make the best use of the resources available at our campus. We would like to know if we have been effective in helping you. Please take a few minutes to complete and return this survey. Your feedback will help us to better serve you in the future.

PLEASE CIRCLE YOUR ANSWER OR FILL IN THE BLANK.

---

1. When did you <u>first</u> enroll at our college? _____ Month/Year

	YES	NO
2. Have you attended a college orientation session or class since you enrolled at this campus?	[ ]	[ ]
IF YOU ANSWERED NO, PLEASE SKIP TO QUESTION 4		
3. Did this orientation give you helpful information about campus programs, procedures and resources?	[ ]	[ ]
4. Did you participate in assessment (testing) prior to enrolling in classes?	[ ]	[ ]
IF YOU ANSWERED NO, PLEASE SKIP TO QUESTION 7		
5. Did you use your assessment results in deciding which courses to take or which program to enter?	[ ]	[ ]
6. Do you think that your assessment results helped you to pick the right courses?	[ ]	[ ]
7. Have you ever met with a counselor or instructor to discuss your educational goals and a plan for achieving them?	[ ]	[ ]
IF YOU ANSWERED NO, PLEASE SKIP TO QUESTION 10		
8. Did this meeting help you to identify or become more clear about your educational goals and how to achieve them?	[ ]	[ ]
9. Do you or the school have a written plan for achieving your goal?	[ ]	[ ]

10. Have you changed your educational goal (or identified a goal if you were undecided) since you started attending our college?

YES	NO
[ ]	[ ]

IF YOU ANSWERED NO, PLEASE SKIP TO QUESTION 12

11. What factors led you to change or identify your goal? (Circle all that apply.)

1) Assessment results
2) Discussions with instructors
3) Discussions with counselors
4) Discussion with family or friends
5) Discussions with special program staff (e.g. EOPS, Transfer Center, GAIN)
6) Your grades
7) How much you enjoyed different kinds of courses
8) Potential job opportunities
9) Family responsibilities
10) Types of programs/courses available at this campus
11) Employment
12) Finances
13) Health problems
14) Other (Please state reason):_____

12. Have any of the following things caused you problems at school? (Circle all that apply.)

1) Confusion over what courses you needed to take
2) Inability to enroll in courses because they were full
3) Times at which classes were offered
4) Cancelled classes
5) Lack of courses in your area of interest
6) Your reading and writing skills
7) Your math skills
8) Poor grades in your coursework
9) Physical or other disability
10) Uncertainty about your skills or interests
11) Childcare problems
12) Family responsibilities
13) Health problems
14) Your job
15) Your financial situation
16) Feelings of loneliness or isolation
17) Not knowing how to study
18) Transportation/parking
19) Conflicts with teachers

13. Please indicate how satisfied you are with the treatment and services you received from our Admissions and Records Office? **(Circle the number.)**

1	2	3	4
Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied

14. Please indicate how satisfied you are with the treatment and services you have received during Registration. **(Circle the number.)**

1	2	3	4
Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied

15. Below is a list of services and facilities available to you on our campus. **Please indicate whether or not you have heard of these services/facilities.**

	I'VE HEARD OF THIS SERVICE	**I HAVEN'T HEARD OF THIS SERVICE**
Financial aid services	[ ]	[ ]
Learning Resource Center	[ ]	[ ]
Tutoring	[ ]	[ ]
Childcare services	[ ]	[ ]
Academic counseling	[ ]	[ ]
Career counseling	[ ]	[ ]
Personal counseling	[ ]	[ ]
Job placement/ Employment services	[ ]	[ ]
Student activities (e.g. clubs, socials, trips)	[ ]	[ ]
Services for disabled students	[ ]	[ ]
Student health services	[ ]	[ ]
EOPS	[ ]	[ ]
GAIN Program	[ ]	[ ]
Transfer Center	[ ]	[ ]
Campus Library	[ ]	[ ]
Assessment Center	[ ]	[ ]

16. Below is another list of the same services you saw on the preceding page. This time please <u>circle the services that you have used,</u> and indicate how satisfied you are with the help you received by circling a number on the scale on the right. **<u>Remember only circle and rate those services that you have used.</u>**

I HAVE USED THIS SERVICE OR FACILITY **(Circle all that apply)**		Level of Satisfaction
1)	Financial Aid services	1------2------3------4
2)	Learning Resource Center	1------2------3------4
3)	Tutoring services	1------2------3------4
4)	Childcare services	1------2------3------4
5)	Academic counseling	1------2------3------4
6)	Career counseling	1------2------3------4
7)	Personal counseling	1------2------3------4
8)	Job placement/job development	1------2------3------4
9)	Student activities (e.g. clubs, socials, trips)	1------2------3------4
10)	Services for disabled students	1------2------3------4
11)	Student health services	1------2------3------4
12)	EOPS	1------2------3------4
13)	GAIN Program	1------2------3------4
14)	Transfer Center services	1------2------3------4
15)	Campus library	1------2------3------4
16)	Assessment Center	1------2------3------4

PLEASE PROVIDE THE FOLLOWING INFORMATION ABOUT YOURSELF BY CIRCLING YOUR ANSWER OR FILLING IN THE BLANK:

17. Age:_____ 18. Sex: 1) Male 2) Female

19. Ethnicity:

1)	Chinese	10)	Mexican-American
2)	Filipino	11)	Puerto Rican
3)	Indian Subcontinent	12)	Other Hispanic
4)	Japanese	13)	Middle Eastern
5)	Korean	14)	Native American
6)	Pacific Islander	15)	Black Non-Hispanic
7)	Vietnamese	16)	Other Non-White
8)	Other Asian	17)	White Non-Hispanic
9)	Cuban		

20. How many units are you taking this term?

1) 0.1 - 5.9 units 2) 6.0 - 11.9 units 3) 12 or more units

21. When do you attend classes? (Circle all that apply.)

1) Day 2) Evening 3) Weekends

22. Are you employed? 1) Yes: How many hours per week, on average? _____
2) No

23. What grades have you received in your courses at this campus?

1)	Mostly A's	5)	Mostly C's
2)	Mostly A's and B's	6)	Mostly C's and D's
3)	Mostly B's	7)	Mostly D's and F's
4)	Mostly B's and C's	8)	Mostly W's

Thank you for completing the survey. Please use the back of this page to make any comments about your experiences at our college.

THE STATEWIDE EVALUATION OF MATRICULATION
SURVEY OF FACULTY

_____

The Evaluation and Training Institute (ETI) has been contracted by the Chancellor's Office to conduct a statewide evaluation of matriculation. **Matriculation is a process which brings a college and a student into an agreement for the purpose of realizing the student's educational objective. The program as implemented is comprised of six components: admissions, orientation, assessment, counseling, follow-up and institutional research.** As part of ETI's evaluation, we would like faculty's perceptions of the manner in which matriculation is being implemented, and the impacts it is having upon the college and students. Please complete this brief survey and return it your matriculation coordinator. **Your responses will remain completely confidential.**

PLEASE CIRCLE THE NUMBER OR FILL-IN YOUR RESPONSE

1. **Are you full-time or part-time?** 1. Full-time 2. Part-time

2. **In what department/program do you teach? (Circle all that apply)**

1) Agriculture/Natural Resources
2) Architecture/Environmental Design
3) Biological/Life Sciences
4) Business/Management
5) Communications
6) Computer/Information Sciences
7) Education
8) English
9) Fine/Applied Arts
10) Foreign Languages
11) Health Professions
12) Home Economics
13) Humanities
14) Math
15) Physical Sciences
16) Psychology
17) Social Sciences
18) Other Vocational/ Technical
19) Other:_____ (please specify)

3. **How long have you taught at this college?**

_____ Years _____ Months

	Yes	No	Don't know
4. **Did you participate in the planning of matriculation at your college?**	[ ]	[ ]	
5. **Does your college currently have a matriculation committee?**	[ ]	[ ]	[ ]
6. **Are you currently serving on this committee?**	[ ]	[ ]	

7. **Have you participated in the planning or implementation of any of the following services on your campus, either before or since the implementation of matriculation? (Circle all that apply.)**

1) Assessment
2) Faculty advisement program
3) Student orientation programs
4) Early warning system
5) Institutional research/evaluation

[OVER]

Please indicate how much you agree or disagree with each of the following statements about matriculation <u>at your college</u> by circling your response.

		STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE	NO OPINION
8.	Faculty have been involved in the planning of matriculation.	1	2	3	4	5
9.	Faculty have been involved in the implementation of matriculation.	1	2	3	4	5
10.	Faculty have been kept informed about matriculation.	1	2	3	4	5
11.	The matriculation process is a barrier to many vocational and non-traditional students.	1	2	3	4	5
12.	Matriculation is helping to place students into courses in which they can succeed.	1	2	3	4	5
13.	Matriculation has improved student services.	1	2	3	4	5
14.	Matriculation should be mandatory for all new students, except those specifically excluded by local Board policy.	1	2	3	4	5
15.	If matriculation is mandatory, enrollments will decrease.	1	2	3	4	5
16.	Matriculation has been well planned and implemented.	1	2	3	4	5
17.	Matriculation has had a major impact upon the instructional program.	1	2	3	4	5
18.	Most faculty here are aware of, and interested in, matriculation.	1	2	3	4	5
19.	Matriculation has made this college a remedial institution.	1	2	3	4	5
20.	Most students find the matriculation process helpful and beneficial.	1	2	3	4	5
21.	Matriculation is making this college more responsive to students' needs.	1	2	3	4	5

APPENDIX 3

Directions and Issues for Future Matriculation Cost Analyses

At the end of this first year of a multi-year cost analysis, it is important to assess the course that has been set. Are we moving in a direction that will allow us to meet the goals initially set for the cost analysis, as summarized in the introduction of this report? We have established a baseline database that shows some variation from the MPR baseline estimates by individual matriculation activity, but which produces an overall estimate of baseline expenditures that is very close to the original MPR estimate in real terms. This is a basis for optimism in our hopes to achieve the overall project goals. Using the 1987/88 cost forms, it appears that we were able to replicate the precision MPR was able to achieve through their on-site data collection efforts. As it is much more difficult to obtain accurate and comparable cost breakouts through a survey instrument, this is a basis for confidence in our ability to obtain accurate cost data for the subsequent years of analysis by survey.

A cause for concern, however, is the fact that the matriculation cost forms are scheduled for a third round of changes. It is essential that the cost analysis team have a full opportunity to review this modified cost form package before it is sent to the colleges. If we are to obtain cost data for the subsequent years of analysis that are comparable to the MPR data and to our baseline data, the structure of the cost forms and the exact contents of the accompanying instructions are critical. Table 5, shown on the following page, clearly demonstrates the uselessness of incompatible data for the purpose of longitudinal analyses.

We have also obtained detailed 1987/88 expenditure data from 27 of the 120 colleges included in this analysis. Although analyses of these detailed data did not fit into the scope of the objectives set for this first year of analysis, they will be critical to future analyses of whether the workload measures and cost assumptions utilized for the original estimates of matriculation expenses were accurate and whether additional cost variables need to be be included.

Conclusion

We are confident that we have developed a baseline cost database that will accurately serve as the foundation for the future analyses specified for this evaluation of California Community College matriculation services. We also have a great deal of detailed workload and resource ingredient data for a subset of the colleges that will allow future analyses of the relevant cost questions initially specified for this project. To enable us to remain on track in meeting these goals, however, it is essential that subsequent cost data that are collected be compatible with and comparable to the MPR and

baseline datasets constructed to date. To achieve this degree of compatibility, it is essential that future modifications to the cost forms, and their accompanying instructions, be carefully reviewed by the cost analysis team prior to being forwarded to the colleges for completion. Our purpose will be to ensure compatibility of the structure of the cost questions and their applicability to cost analysis purposes.

1. These goals are specified on page 5 of the project Request for Proposals, #8703.

2. These first year goals were established through the mutual agreement of the contractor and the Chancellor's Office. The MPR report, Community College Matriculation Cost Study, was submitted to the Chancellor's Office, in March of 1984.

3. These difficulties are discussed in more detail in the instructions to the 1987/88 cost forms.

4. The vast differences in the total matriculation expenditure reported for these two years is best represented in the last column of Table 5, which shows percent change. Note that many colleges reported expenditures for the two years that differed by over 100%.

5. As described in the report, Matriculation: A Report on First-Year Implementation, released by the Matriculation Unit of the Chancellor's Office, May, 1989

6. Upon submission of data from these colleges, the baseline dataset will be updated for subsequent analyses.

7. "For credit," means a student taking courses for credit. These are estimated to be the students must likely to use matriculation services.

8. This estimate of salary inflation, and therefore matriculation costs, was taken from the Chancellor's Office Report on Staffing and Salaries. It balances an average increases in salary of approximately 25% with reductions in staff of approximately 10%.

TABLE 2

TOTAL EXPENDITURES BY MATRICULATION ACTIVITY FOR ALL COLLEGES - 1987/88

	Direct Services	Coordination/ Administration	Total Expenditure	Chancellor Contribution	District Contribution
Admissions/ Registration	$30,741,057 (82.5 %)	$6,512,923 (17.5 %)	$37,253,980 (100 %)	$507,149 (1.4 %)	$36,746,831 (98.6 %)
Orientation	$5,967,886 (83.2 %)	$1,203,611 (16.8 %)	$7,171,497 (100 %)	$474,664 (6.6 %)	$6,696,833 (93.4 %)
Skills Assessment and Student Evaluation	$6,448,815 (80.1 %)	$1,600,126 (19.9 %)	$8,048,942 (100 %)	$889,160 (11.0)	$7,159,782 (89.0 %)
Advisement, Counseling, and Educational Plan	$36,259,386 (1.1 %)	$3,540,134 (8.9 %)	$39,799,520 (100 %)	$949,743 (2.4 %)	$38,849,777 (97.6 %)
Student Progress Follow-Up	$11,962,368 (91.0 %)	$1,190,153 (9.0 %)	$13,152,522 (100 %)	$377,366 (2.9 %)	$12,775,155 (97.1 %)
Institutional Research and Evaluation	$680,620 (47.2 %)	$761,322 (52.8 %)	$1,441,943 (100 %)	$172,439 (12.0 %)	$1,269,503 (88.0 %)
Matriculation Training Activities	$410,206 (45.3 %)	$496,036 (54.7 %)	$906,243 (100 %)	$79,894 (8.8 %)	$826,348 (91.2 %)
Matriculation Related Data Processing	$8,214,086 (67.4 %)	$3,967,298 (32.6 %)	$12,181,384 (100 %)	$156,644 (1.3 %)	$12,024,740 (98.7 %)
Matriculation Coordination Administration	$0 (0.0 %)	$3,479,093 (100 %)	$3,479,093 (100 %)	$349,254 (10.0 %)	$3,129,839 (90.0 %)
Total Expenditures:	**$100,684,425 (81.6 %)**	**$22,750,696 (18.4 %)**	**$123,435,121 (100 %)**	**$3,956,313 (3.2 %)**	**$119,478,808 (96.8 %)**

The separation of expenditures on the coordination/administration component of matriculation services from those on direct services to students has been handled in two ways. First, the last category of matriculation service is for overall matriculation coordination and administration. All coordination/administration personnel with an overall responsibility for matriculation, e.g. the matriculation director, are to be reported in the ninth category of matriculation service, Matriculation Coordination and Administration. Conversely, the coordination and administration component associated with each matriculation activity, e.g. the Director of Admissions, will be listed under the Coordination/Administration line for that activity. Thus, it is shown in Table 1 that 2.8% of all matriculation expenditures were spent on overall matriculation administration, and the bottom line of Table 2 shows that 18.4% of the total cost of matriculation services were used to support overall administration as well as the administrative components for each matriculation activity.

Data at the level of detail shown in Table 2 are presented for each responding college in Table 6 at the end of this report. Table 7, also found at the end of this report, shows the Chancellor's operating expense and data processing allocations for 1987/88. These allocations are also broken out into categories of "Expended" and "Carried Over" funds.

The Baseline Data

For the reasons described in the Background section of this report, 1987/88 data have been used as the basis for developing the baseline expenditure data. To derive an estimate of baseline expenditures from these data, expenditures from the Chancellor's Office contribution have been omitted. Thus, the total baseline expenditure is based on the total shown for Column (5) of Table 2, above, $119,478,808. Baseline data by college are shown in Table 8 at the end of this report. Baseline Direct Service and Coordination/Administration components were derived for each college by multiplying the district share of the total expenditure by activity by college by the original prorations for these direct service and administrative components.

Because there were six nonresponding colleges when these data were created, baseline expenditures were estimated for these college to complete the baseline dataset.[6] Based on the assumption that these colleges were making expenditures on matriculation services at the level of the other colleges, they were assigned expenditure values based on the overall average expenditure per pupil enrolled "for credit."[7] This average per pupil amount was multiplied by the "for credit" enrollment at each of the six nonresponding colleges to derive an estimated total expenditure for each of them. These estimation techniques and rounding errors cause the total baseline expenditure, as

shown at the end of Table 8, located at the end of this report, to vary slightly from the total district contribution shown in Table 2, above.

Comparing the Baseline Data to the MPR Estimates

A summary comparison of the baseline data with the initial MPR estimates of existing matriculation expenditures for 1982/83 is shown below in Table 3. Because the categories of matriculation services used by MPR are somewhat different than those in current use, several of their categories were broken out for comparison purposes. For example, they had no data processing component for existing expenditures, but showed data processing as a large part of Admissions/Registration expenditures. To facilitate the comparison with the 1987/88 baseline data, this total was broken out into two categories. Similarly, the total expenditure they showed for Counseling is broken into the two counseling activities included in the current matriculation breakout of services. As shown, the current matriculation categories of Institutional Research and Evaluation and Matriculation Training Activities were not occurring or were not accounted for at the time of the MPR analysis. Overall, the total baseline (existing) expenditure they show for 1982/82 is $105,433,677, compared to our total baseline estimate of $119,478,808.

How do these two estimates compare in real terms? That is, if we make allowances for inflation and other major changes in conditions that would affect the comparability of these cost estimates, how do they compare? Table 4 shows these comparisons with adjustments designed to convert them into "real" terms.

Columns (1) of Table 4, shown on the next page, lists the same 1982/83 expenditure estimates shown in Table 3. Column (2) shows them with adjustments. Three adjustments were taken into account to render these costs more comparable to the 1987/88 data. First, they were inflated by 16.25% to account for community college salary inflation during this period.[8] Second, they were deflated by a reduction in the number of students enrolled "for credit" during this time span of 4.45%. Last, the estimates were inflated by the error term estimated for the MPR sample, which was 4.63%.[9] Overall the adjustment factors increase the original MPR estimates by approximately 16.25%

Column (3) of Table 4 shows total 1987/88 baseline expenditures by matriculation activity. Columns (4) and (5) show dollar and percent comparisons in nominal and real terms, respectively. The totals of these last two columns show that while baseline matriculation expenditures are shown to increase by 11.3% over this period of time, in real terms, this represents a slight drop in matriculation expenditures of 4.2%. As we know that there is some unknown degree of error in all of these estimates, it appears that the MPR estimate of baseline matriculation expenditures is very comparable with the 1987/88 baseline expenditure data, as expressed in real terms.

TABLE 3

COLLEGE EXPENDITURES ON MATRICULATION - 1987/88
COMPARED TO THE MPR EXPENDITURE ESTIMATES - 1982/83

*Matriculation Expenditures 1987/88		*Matriculation Expenditures 1982/83	
Admissions/ Registration	$36,746,831	Admissions/ Records	$36,676,363**
Orientation	$6,696,833	Orientation	$1,224,431
Skills Assessment and Student Evaluation	$7,159,782	Testing	$392,497
Advisement, Counseling, and Educational Plan	$38,849,777	Counseling	$33,058,157***
Student Progress Follow-Up	$12,775,155	Counseling	$10,870,672***
Institutional Research and Evaluation	$1,269,503		
Matriculation Training Activities	$826,348		
Matriculation Related Data Processing	$12,024,740	Data Processing From Admissions/ Records	$19,907,185**
Matriculation Coordination Administration	$3,129,839	Administration	$3,304,372
Total Expenditures:	**$119,478,808**		**$105,433,677**

*These numbers only reflect college expenditures and do not include any expenditures from the Chancellor's Office Matriculation Funds for 1987/88. Also, 1982/83 data excludes summer sessions, while 1987/88 data includes them. The source of the 1982/83 data is the table shown on Page 17 of the MPR Report.

**The 1982/83 amount shown for Admissions/Records represents the $56,583,548 expenditure originally reported for this category less the amount which was attributed to data processing, which is now reported above under that category. The breakout is based on data presented in Table 4, page 22, Appendix E, of the MPR Report.

***The total expenditure of $43,928,829 originally reported for counseling services, as reported for 1982/83, was prorated into two categories using their 1987/88 percent allocations.

colleges during 1987/88 and that even these funds did not reach the colleges until the Spring of that year.[5] For this reason, nearly 50% of these limited funds were carried over to the 1988/89 year. Thus, it is concluded, and substantiated by comparisons with the MPR data, that the district-level expenditures for 1987/88 constitute the most reliable source for constructing baseline matriculation expenditure data.

Matriculation Expenditures for 1987/88

This section presents total matriculation expenditures reported for 1987/88. The baseline component of these data will be presented in the following section.

Table 1 shows total matriculation expenditures by matriculation activity and percent allocations by activity.

Table 2, shows the breakouts of these totals into categories of direct services versus administration and Chancellor versus district contributions. The same total expenditures shown in Table 1 are repeated in Column (3) of Table 2. Columns (1) and (2) break these totals into direct service and coordination/administration components. While Columns (4) and (5) breakout the totals by the relative contributions from the Chancellor's Office and from district funds. The relative percent allocations are shown in brackets below each expenditure.

TABLE 1

**TOTAL EXPENDITURES
BY MATRICULATION ACTIVITY
FOR ALL COLLEGES - 1987/88**

Admissions/Registration	$37,253,980	30.2 %
Orientation	$7,171,497	5.8 %
Skills Assessment and Student Evaluation	$8,048,942	6.5 %
Advisement, Counseling, and Educational Plan	$39,799,520	32.2 %
Student Progress Follow-Up	$13,152,522	10.7 %
Institutional Research and Evaluation	$1,441,943	1.2 %
Matriculation Training Activities	$906,243	0.7 %
Matriculation Related Data Processing	$12,181,384	9.9 %
Matriculation Coordination Administration	$3,479,093	2.8 %
Total Expenditure:	**$123,435,121**	**100.0 %**

California Community College Matriculation
The First-Year Implementation Cost Report

Completed by Dr. Thomas B. Parrish
AEFP, Inc.
July 9, 1989

Introduction

The overall purpose of the cost component of the statewide evaluation of matriculation services in the California Community Colleges is to examine the costs of matriculation. Specifically, this part of the study is to address the questions and whether the workload measures and cost assumptions utilized for the original estimates of matriculation expenses were accurate, whether additional cost variables need to be be included, and if net costs changed in other services and instructional areas as a consequence of matriculation.[1] More limited goals were established for this first year of the cost analysis: establish a baseline database of matriculation expenditures by college and compare them with the initial estimates of existing matriculation costs, as produced for the Chancellor's Office, by MPR Associates, of Berkeley, California.[2] The purpose of this report is to present the baseline matriculation expenditures and comparisons of them with the MPR estimates. It concludes with a brief discussion of directions and issues for the matriculation cost analyses for the subsequent years of this project.

Background

The first task in examining the costs of matriculation services over the period of statewide implementation is to establish baseline cost data. That is, how much was being expended by the colleges prior to the initiation of this statewide implementation project and the infusion of state funds? This amount was estimated in the MPR report to be $105,433,677 for the 1982/83 year. The primary objective of the first year cost analysis, which is presented in this report, is to update MPR's estimate of baseline costs and to base it on data from the population, rather than a sample, of colleges.

The initial design of this multi-year cost analysis called for the baseline matriculation expenditures to be from 1986/87. These data were reported in the Matriculation Plan that was submitted by each college for that year. Unfortunately, due to time constraints, the cost forms included with the 1986/87 Plan were designed prior to contracting with the present cost analysis team. Because the cost forms in this document did not

provide sufficient detail in their directions to produce comprehensive measures of current expenditures or data comparable to the initial MPR cost estimates, the resulting data could not be used to construct the needed baseline expenditures.

There were four basic difficulties associated with this initial set of cost forms: 1) They did not clearly delineate the services to be included in a working definition of matriculation, e.g. does the admissions/registration component include all students or only newly registering students? 2) They did not systematically include the administration and support component of matriculation services. 3) They did not systematically include matriculation related data processing services. 4) They did not provide sufficient detail to allow analysis of the workload assumptions used by MPR Associates.[3]

The 1987/88 cost forms were designed by the project cost analysis team to address these limitations. Several meetings were held with the Chancellor's Office and with representatives of the Colleges to review the forms. They were also field tested at three community colleges. The goal was to develop a survey format that could match the precision of the MPR data, which were collected by a research team during site visitations to twelve campuses. It is difficult to match the flexibility of on-site visitations when cost data are collected by survey instruments. For example, when it is not possible to be on site to answer questions as to how various costs are to be charged, it is essential that fairly extensive and clear instructions be included with the cost instruments. We believe we were able to achieve appropriate levels of detail and precision in the 1987/88 cost data and we have produced a baseline dataset that is very comparable to the initial MPR estimates. Using estimation techniques to fill in missing data for nonresponding colleges in 1987/88 and using several adjustment factors to allow for environmental changes (e.g. salary inflation) from the time of the MPR estimates (1982/83) to 1987/88, we have produced a baseline total district expenditure that varies from the initial MPR estimate of existing matriculation costs by only 4.2% .

The importance of this precision is seen in the lack of clarity in the prior year, 1986/87, cost forms produced data that are very inconsistent with the data produced for the 1987/88 year. Large differences are often observed in the expenditure amounts reported for matriculation services by the colleges for these two years. These comparative data are shown in Table 5 at the end of this report.[4] Because the 1986/87 data were not comparable to the initial MPR estimates, and would also not be comparable to the subsequent cost data that will be collected for the duration of this project, they could not be used to form the baseline data.

The significance of this omission was greatly reduced, however, by the fact that only 20% of the full state funding for matriculation operations was made available to the

9. This error term was calculated by comparing the 1987/88 expenditures for the MPR sample per "for credit" student to the average comparable figure for the population of colleges. The MPR sample showed 1987/88 expenditures on matriculation that were 4.63% higher than the college population, on average.

ERIC Clearinghouse for Junior Colleges NOV 03 1989